Appendix D

Waterbody Data Forms and Photographs

S-A18-1

Created	2018-05-09 11:06:27 EDT by Laura Giese
Updated	2018-06-04 10:59:42 EDT by Sam Edmonds
Location	36.3916368, -79.6609113
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/09
Date2	180509

Resource Crew Info

Field Crew	Jim Bolduc, Laura Giese, Simon King, Tony Tredway, Karla Fortier
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	01
Resource ID	S-A18-1
Do you need to override the resource id?	Yes
Resource ID Override	S-A18-1
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	15.75
Calculated Stream Type	Ephemeral
Wildlife Observed	raccoon tracks

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	S
Channel condition	Marginal
In stream habitat	Poor

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2

Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	1.1
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.1

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	1.1
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.1

Stream Geomorphology

Continuity of channel bed and bank	Weak
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Moderate

Second or greater order channel	No
Stream Geomorphology Total	5

Stream Hydrology

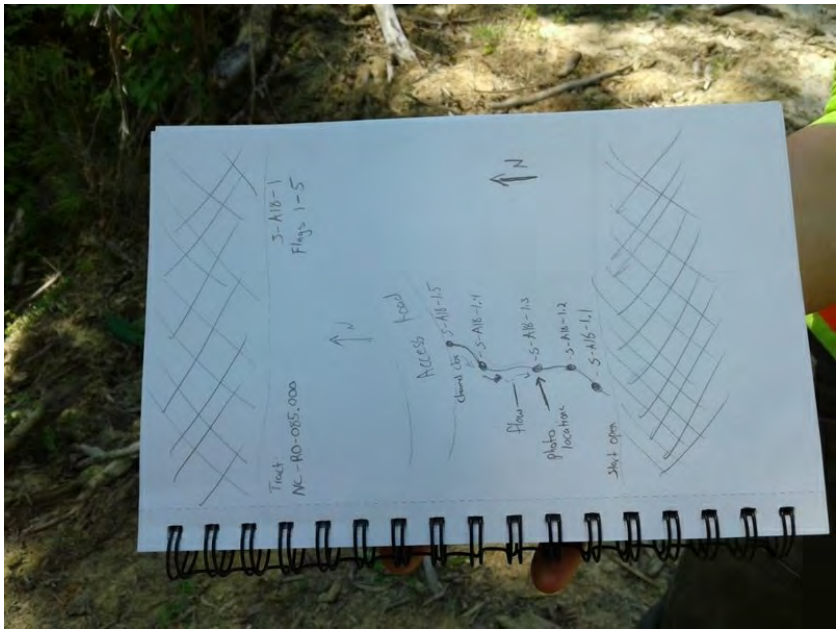
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	5

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	5.75
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Upslope of dirt road-no surface flow or hydric soils
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NW

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	W

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-2

Created	2018-05-09 17:14:20 UTC by Laura Giese
Updated	2018-09-20 19:06:46 UTC by Susie Gifford (SBG)
Location	36.3916368, -79.6609113
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/09
Date2	180509

Resource Crew Info

Field Crew	Jim Bolduc, Laura Giese, Simon King, Tony Tredway, Karla Fortier
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	2
Resource ID	S-A18-2
Do you need to override the resource id?	Yes
Resource ID Override	S-A18-2
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	47
Calculated Stream Type	Perennial
Wildlife Observed	crayfish,frogs

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	SE
Channel condition	Suboptimal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	10
Average Water Width (ft)	5
Bank to Bank (ft)	20

Bankfull Width (ft)	20
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	5
Left Bank Slope	> 35% (> 20 deg) Very Steep
Left Erosion Potential	High
Left Bank Substrate	Boulder/Slabs, Rubble

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	High
Right Bank Substrate	Cobble-Gravel, Sand

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Strong
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Strong
Recent alluvial deposits	Strong
Headcuts	Strong
Grade control	Strong
Natural valley	Moderate

Second or greater order channel	Yes
Stream Geomorphology Total	25.5

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Weak
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Strong
Aquatic mullusks	Absent
Fish	Weak
Crayfish	Strong
Amphibians	Strong
Algae	Weak
Wetland plants in streambed	Other
Stream Biology Total	13
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Water is clear
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

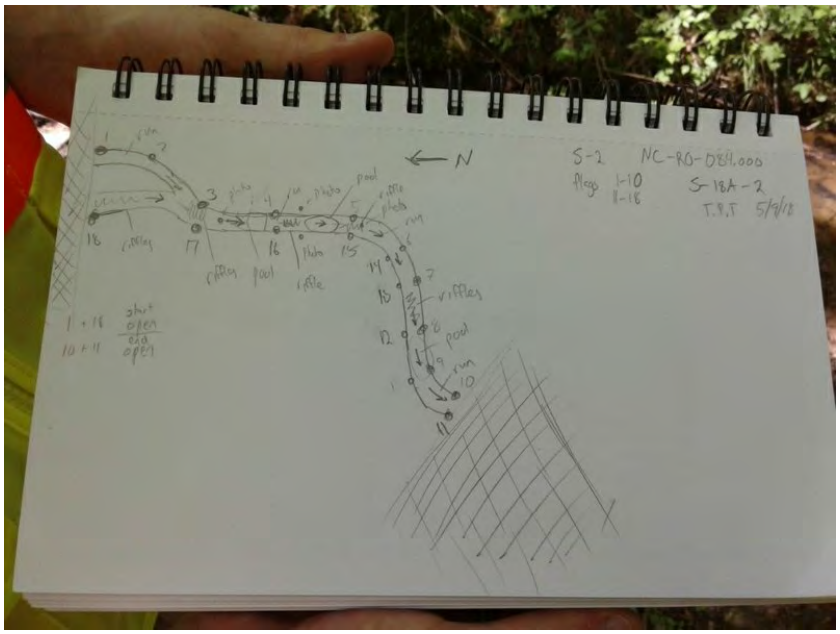
Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	E

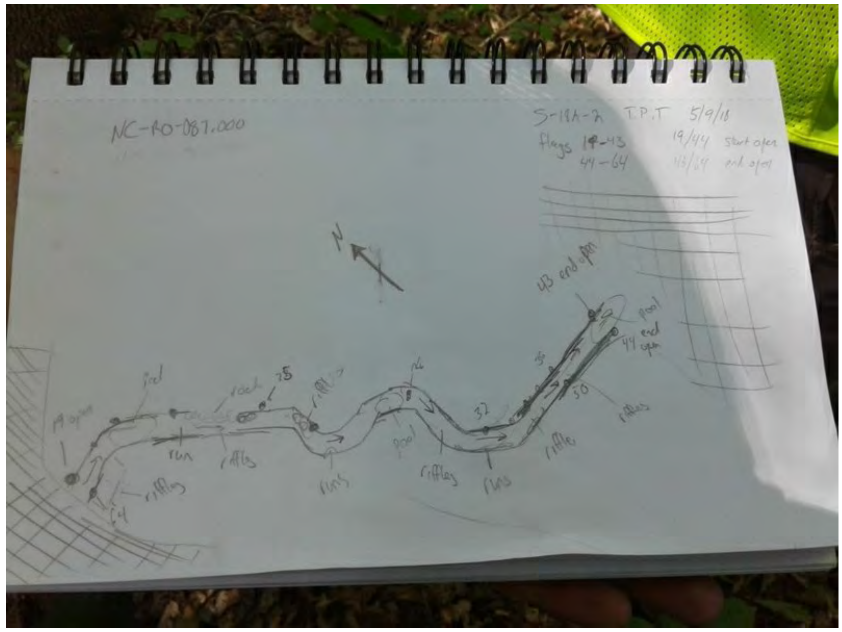
Across Stream Photo 2	
Across stream photo direction 2	W
Additional Stream Photos	

2nd section-upstream, flag #31

2nd section-dnstream, flag #31

Sketch of Stream

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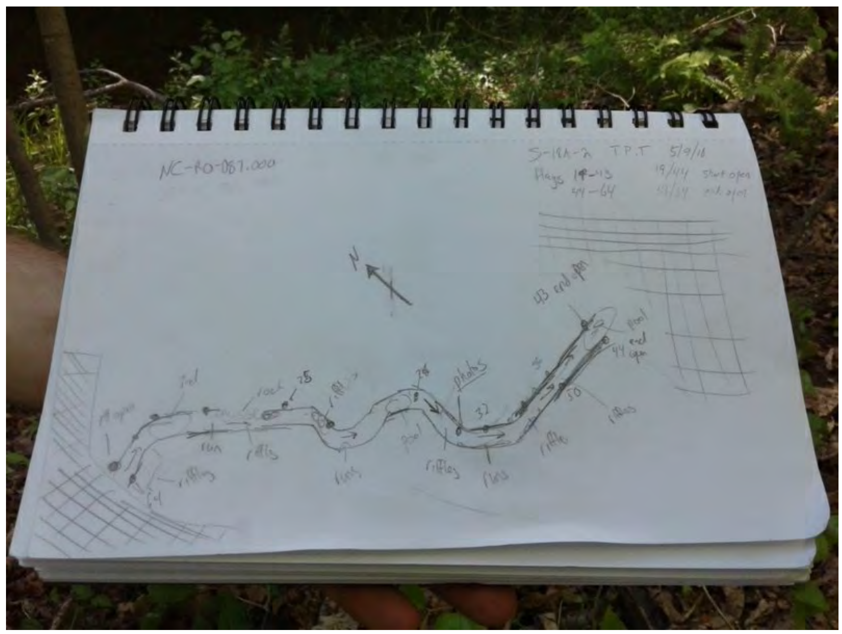
pool
riffles
run
pool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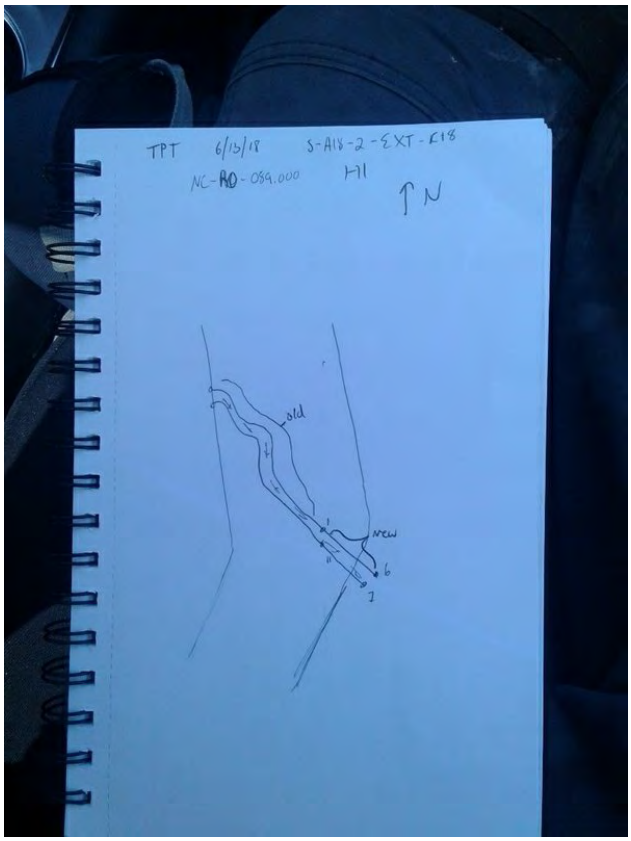


Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-4-1

Created	2018-05-10 15:43:35 UTC by Laura Giese
Updated	2018-09-13 15:09:36 UTC by Phil Jacques
Location	36.4098182, -79.6314372
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/10
Date2	180510

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	4
Resource ID	S-A18-4-1
Do you need to override the resource id?	Yes
Resource ID Override	S-A18-4-1
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	40.5
Calculated Stream Type	Perennial
Wildlife Observed	fish, frogs

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	SE
Channel condition	Suboptimal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	4
Average Water Width (ft)	4
Bank to Bank (ft)	6

Bankfull Width (ft)	4
Probed Stream Depth	6 to 12 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0.85
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0.85

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0.85
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0.85

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Strong
Particle size of stream substrate	Moderate
Active or relict floodplain	Weak
Depositional bars or benches	Moderate
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Absent
Natural valley	Moderate

Second or greater order channel	Yes
Stream Geomorphology Total	19

Stream Hydrology

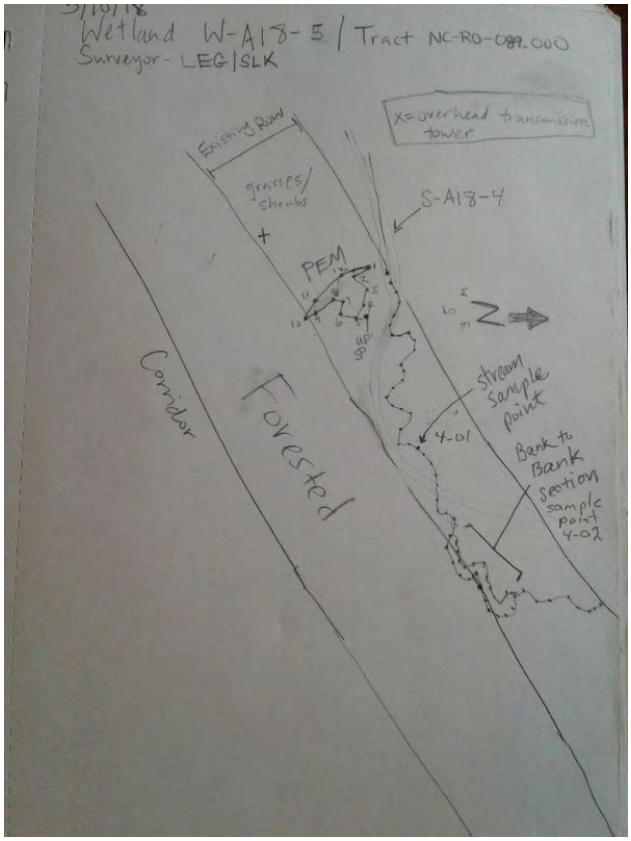
Presence of baseflow	Strong
Iron oxidizing bacteria	Moderate
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	10

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Moderate
Crayfish	Moderate
Amphibians	Moderate
Algae	Absent
Wetland plants in streambed	OBL
Stream Biology Total	11.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Photos by flag #15
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SE
Across Stream Photo 1	
Across stream photo direction 1	N

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-4-2

Created	2018-05-11 19:45:00 UTC by Laura Giese
Updated	2018-09-13 15:52:42 UTC by Phil Jacques
Location	36.4074107, -79.6492128
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/11
Date2	180511

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	4
Resource ID	S-A18-4-2
Do you need to override the resource id?	Yes
Resource ID Override	S-A18-4-2

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	40
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	SE
Channel condition	Suboptimal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	9
Average Water Width (ft)	5
Bank to Bank (ft)	15
Bankfull Width (ft)	15

Probed Stream Depth	6 to 12 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Low
Left Bank Substrate	Cobble-Gravel

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	1.1
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.1

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Weak
Depositional bars or benches	Moderate
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	Yes

Stream Geomorphology Total	18.5

Stream Hydrology

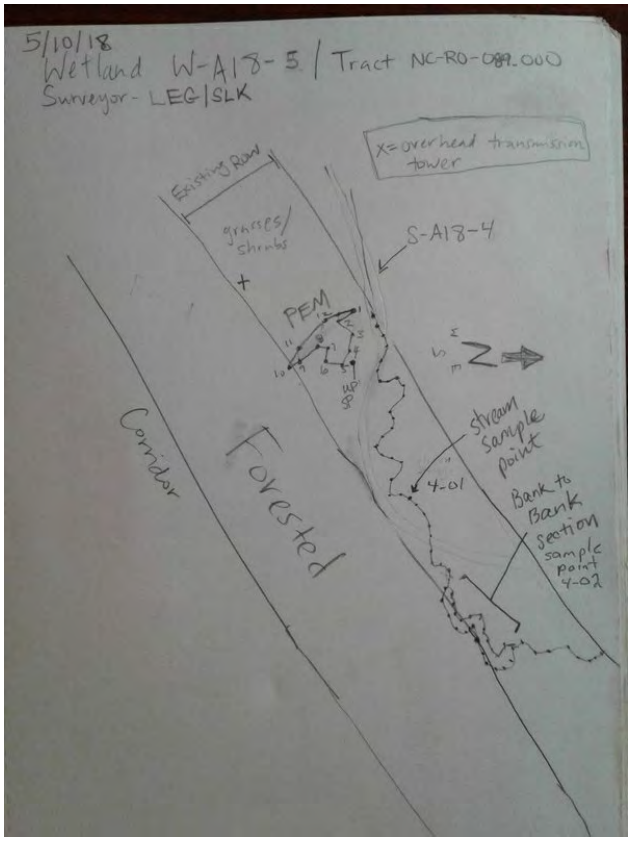
Presence of baseflow	Strong
Iron oxidizing bacteria	Weak
Leaf litter	Absent
Sediment on plants or debris	Weak
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	10

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Strong
Aquatic mullusks	Absent
Fish	Moderate
Crayfish	Weak
Amphibians	Moderate
Algae	Absent
Stream Biology Total	11.5
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-9

Created	2018-05-11 20:18:52 UTC by Laura Giese
Updated	2018-09-13 15:10:06 UTC by Phil Jacques
Location	36.4078749, -79.6504244
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/11
Date2	180511

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	9
Resource ID	S-A18-9
Do you need to override the resource id?	Yes
Resource ID Override	S-A18-9
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	37
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	SE
Channel condition	Suboptimal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	3
Bank to Bank (ft)	5
Bankfull Width (ft)	4

Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Weak
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	Yes

Stream Geomorphology Total	17.5

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Weak
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	9

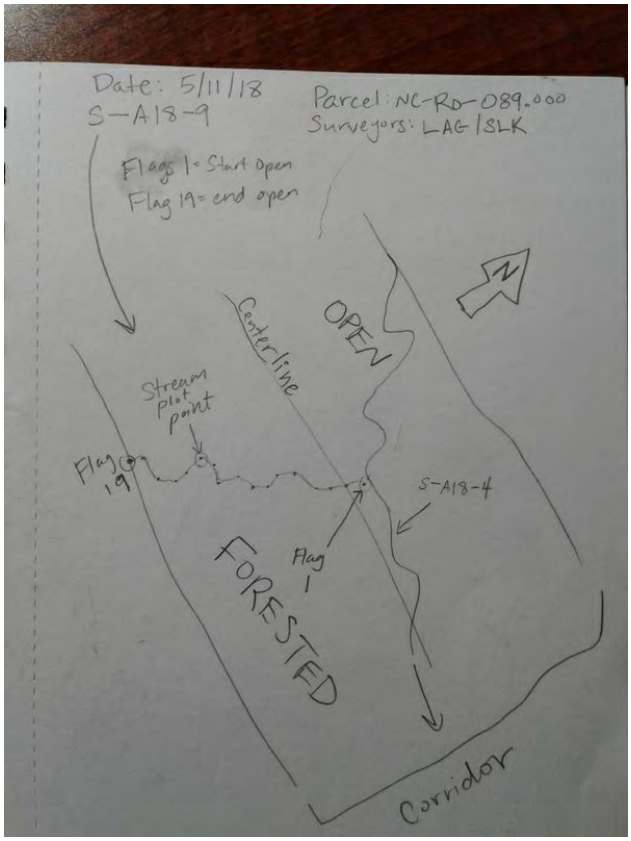
Stream Biology

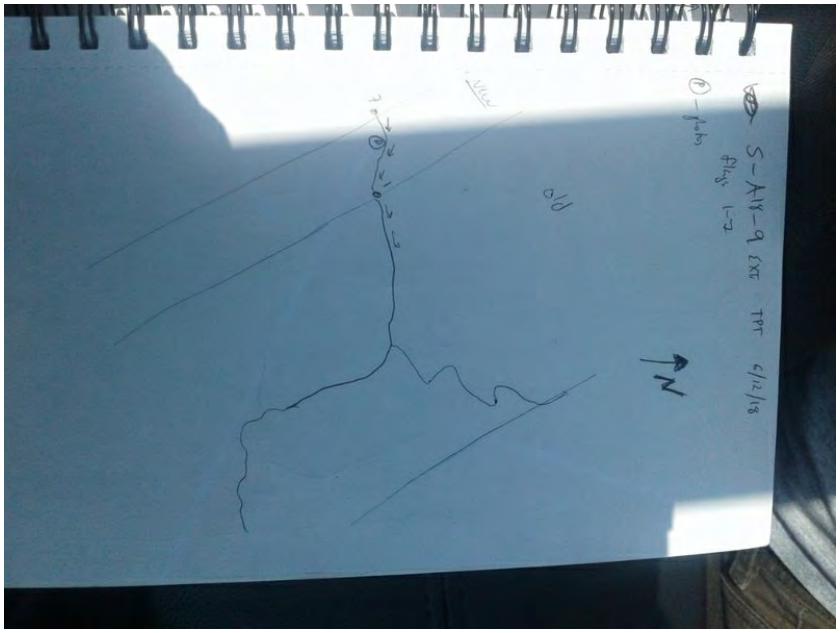
Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Strong
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Moderate
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	10.5
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	W

Downstream Stream Photo	
Downstream photo direction	SE
Across Stream Photo 1	
Across stream photo direction 1	N

Additional Stream Photos

Sketch of Stream





Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-10

Created	2018-05-12 09:11:33 EDT by Laura Giese
Updated	2018-06-05 14:33:22 EDT by Sam Edmonds
Location	36.0960034, -79.3691353
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/12
Date2	180512

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	10
Resource ID	S-A18-10
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	17
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	N
Channel condition	Marginal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	1.3
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.3

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	4
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	1.1
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.1

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0.44
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0.225
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0.15
Right bank total	0.815

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Moderate
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	8.5

Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Weak
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	No
Stream Hydrology Total	3

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Weak
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Absent
Algae	Absent
Stream Biology Total	5.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Channel ends in grasses area. Collects road runoff
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	SW

Sketch of Stream

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

WB-A18-11

Created	2018-05-12 15:06:58 UTC by Laura Giese
Updated	2018-09-20 19:14:24 UTC by Susie Gifford (SBG)
Location	36.0959816, -79.3690677
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/12
Date2	180512

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	11
Resource ID	WB-A18-11
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-11
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Pond
Calculated Stream Score	0
Calculated Stream Type	Undetermined
Wildlife Observed	frogs, turtles, fish

Stream Conditions

Direction of Flow	W

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	37
Average Water Width (ft)	37
Bank to Bank (ft)	40
Bankfull Width (ft)	39
Probed Stream Depth	> 36 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Low
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Stream Geomorphology Total	0

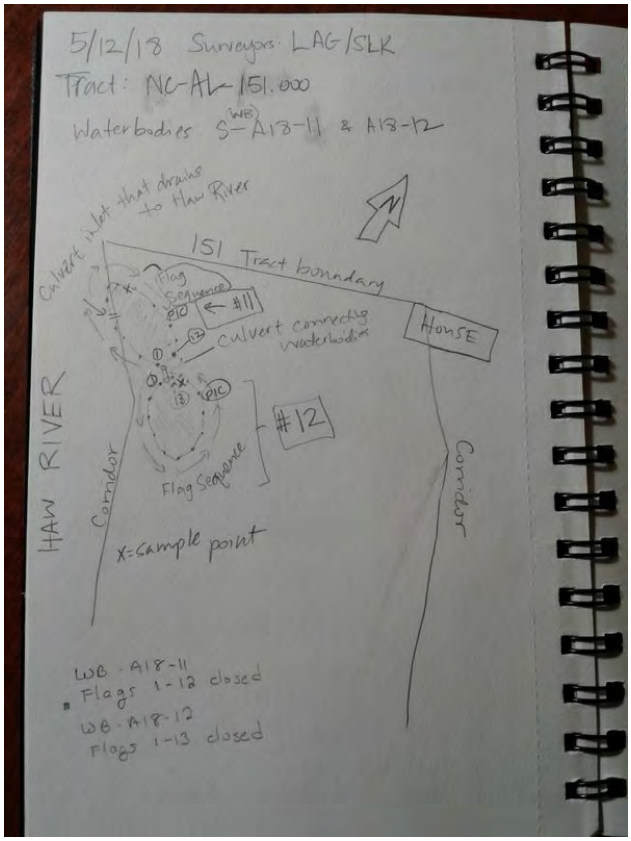
Stream Hydrology

Stream Hydrology Total	0

Stream Biology

Stream Biology Total	0
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo	
Upstream photo direction	S
Downstream Stream Photo	
Downstream photo direction	NE

Across Stream Photo 1	
Across stream photo direction 1	W
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

WB-A18-12

Created	2018-05-12 15:15:35 UTC by Laura Giese
Updated	2018-09-20 19:14:37 UTC by Susie Gifford (SBG)
Location	36.0956647, -79.3697878
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/12
Date2	180512

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	12
Resource ID	WB-A18-12
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-12
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Pond
Calculated Stream Score	0
Calculated Stream Type	Undetermined
Wildlife Observed	fish, turtles, frogs

Stream Conditions

Direction of Flow	W

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	35
Average Water Width (ft)	33
Bank to Bank (ft)	37
Bankfull Width (ft)	37
Probed Stream Depth	> 36 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Stream Geomorphology Total	0

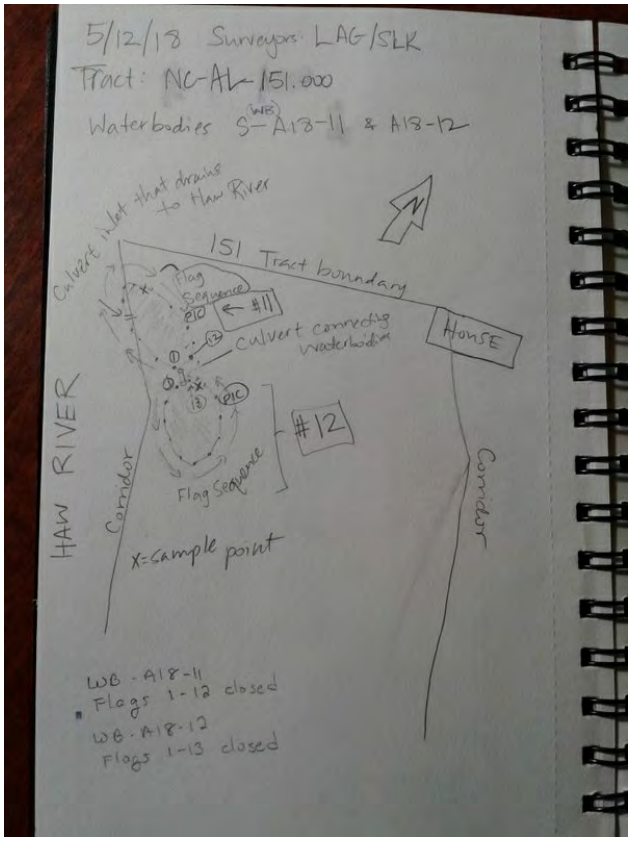
Stream Hydrology

Stream Hydrology Total	0

Stream Biology

Stream Biology Total	0
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo	
Upstream photo direction	S
Downstream Stream Photo	
Downstream photo direction	N

Across Stream Photo 1	
Across stream photo direction 1	W
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-15

Created	2018-05-12 12:26:46 EDT by Laura Giese
Updated	2018-06-05 14:37:19 EDT by Sam Edmonds
Location	36.0943694, -79.3682334
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/12
Date2	180512

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	15
Resource ID	S-A18-15
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	26
Calculated Stream Type	Intermittent
Wildlife Observed	tadpoles

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	SW
Channel condition	Poor
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0.7
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0.7

Stream Measurements

OHWM Width (ft)	4
Average Water Width (ft)	3
Bank to Bank (ft)	5
Bankfull Width (ft)	5

Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0.5
Left bank total	0.5

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0.5
Right bank total	0.5

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Absent
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Weak
Natural valley	Weak
Second or greater order channel	No

Stream Geomorphology Total	9

Stream Hydrology

Presence of baseflow	Moderate
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Weak
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7.5

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Weak
Fish	Weak
Crayfish	Absent
Amphibians	Absent
Algae	Moderate
Stream Biology Total	9.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Asian clam
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	N

Sketch of Stream

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

WB-A18-16

Created	2018-05-12 16:54:25 UTC by Laura Giese
Updated	2018-09-20 19:16:06 UTC by Susie Gifford (SBG)
Location	36.0946353, -79.3687173
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/12
Date2	180512

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	16
Resource ID	WB-A18-16
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-16
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Pond
Calculated Stream Score	4.5
Calculated Stream Type	Ephemeral

Stream Conditions

Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	160
Average Water Width (ft)	155
Bank to Bank (ft)	170
Bankfull Width (ft)	170
Probed Stream Depth	> 36 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Stream Geomorphology Total	0

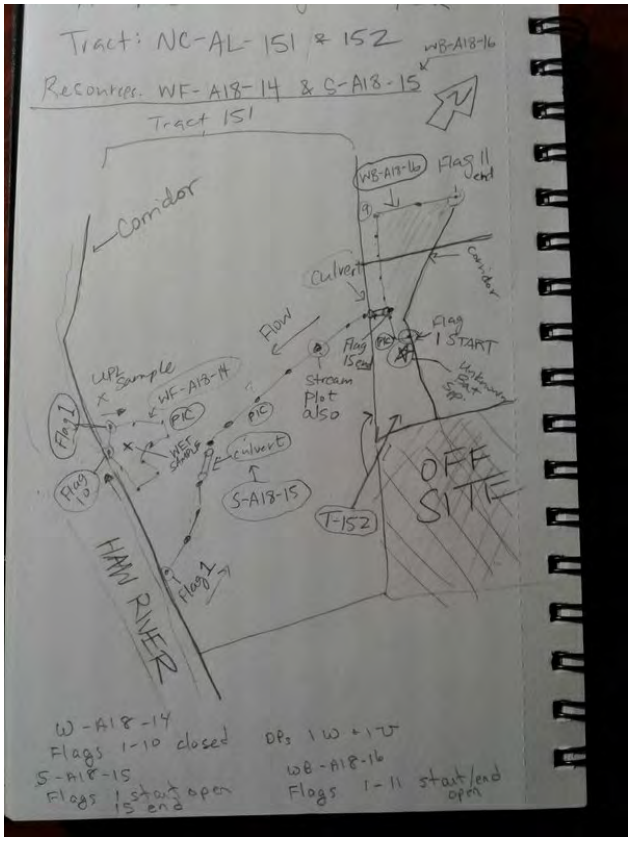
Stream Hydrology

Stream Hydrology Total	0

Stream Biology

Fish	Strong
Amphibians	Strong
Wetland plants in streambed	OBL
Stream Biology Total	4.5
Stream Overview Report Photos	

Upstream Stream Photo	
Upstream photo direction	NE
Downstream Stream Photo	
Downstream photo direction	SW

Across Stream Photo 1	
Across stream photo direction 1	N
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-17

Created	2018-05-15 10:12:56 EDT by Laura Giese
Updated	2018-06-15 09:25:18 EDT by Sam Edmonds
Location	36.4975065, -79.6755401
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/15
Date2	180515

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	17
Resource ID	S-A18-17
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	35.5
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Fast (> 5 cfs)
Direction of Flow	SE
Channel condition	Suboptimal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	167
Average Water Width (ft)	150
Bank to Bank (ft)	170
Bankfull Width (ft)	167
Probed Stream Depth	> 36 inches

Left Bank

Left Bank Height (feet)	20
Left Bank Slope	> 35% (> 20 deg) Very Steep
Left Erosion Potential	Moderate
Left Bank Substrate	Sand

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.2
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0.15
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.35

Right Bank

Right Bank Height (feet)	20
Right Bank Slope	> 35% (> 20 deg) Very Steep
Right Erosion Potential	Moderate
Right Bank Substrate	Sand

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.2
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0.1
Right bank total	1.3

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Absent
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Moderate
Depositional bars or benches	Moderate
Recent alluvial deposits	Moderate
Headcuts	Absent
Grade control	Absent
Stream Geomorphology Total	14

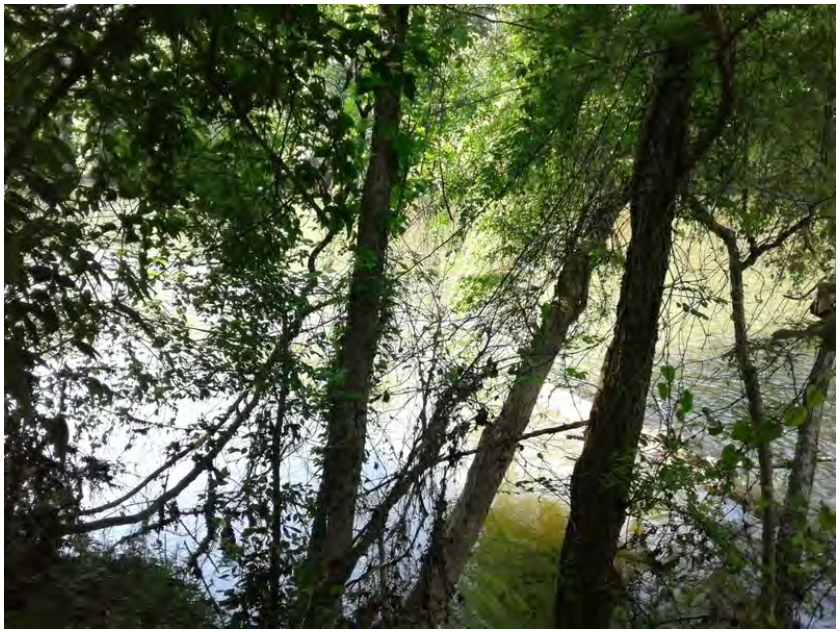
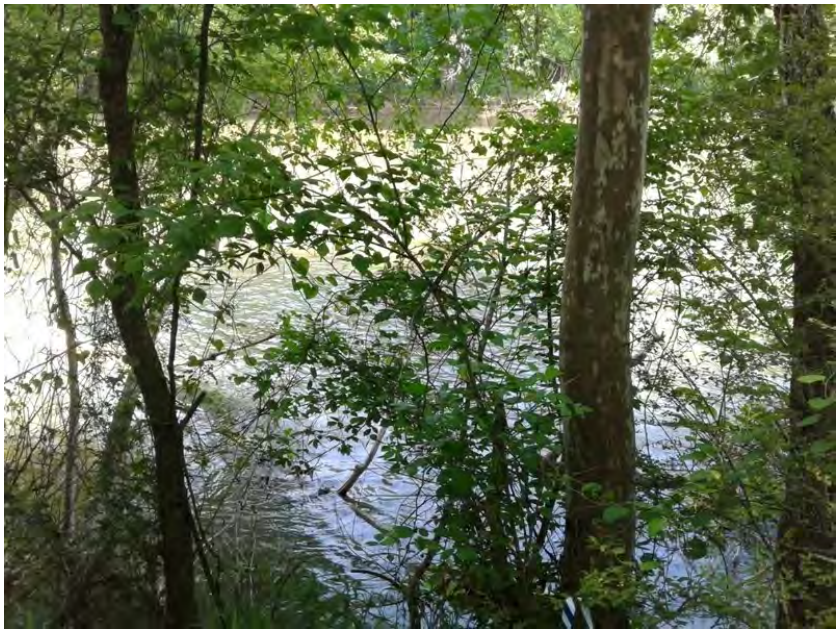
Stream Hydrology

Presence of baseflow	Strong

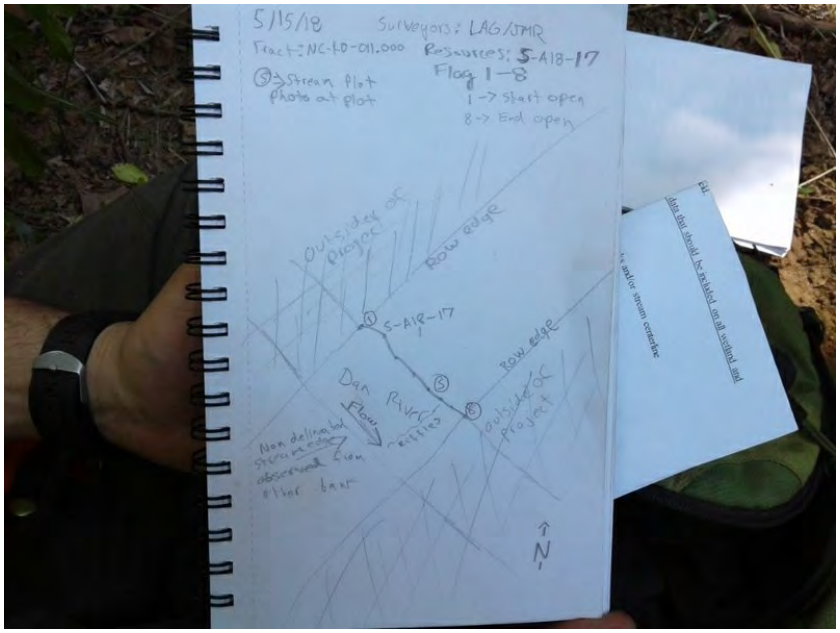
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Moderate
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	9.5

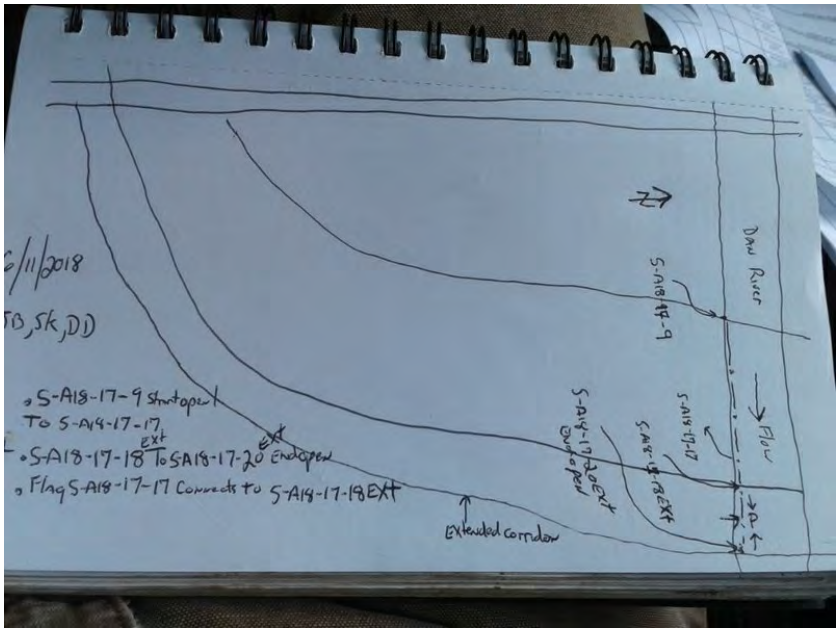
Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Strong
Aquatic mullusks	Weak
Fish	Strong
Crayfish	Weak
Amphibians	Absent
Algae	Absent
Stream Biology Total	12
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Dan River, extension on North side flags 1-3
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NW

Downstream Stream Photo	
Downstream photo direction	SE
Across Stream Photo 1	
Across stream photo direction 1	SW
Additional Stream Photos	

Sketch of Stream


5/15/18
Surveyors: LAG/JMR
Tract: NC-40-011.000
Resources: S-A18-17
Flag 1-8
Stream Plot
Photo at plot
1 -> start open
8 -> End open
Outside of Project
ROW edge
S-A18-17
Dan River
Flow
Non delineated stream edge observed from other bank
ROW edge
Outside of Project
N


N
Dan River
S-A18-17-9
Flow
S-A18-17-9 start open
To S-A18-17-17
S-A18-17-18 Ext To S-A18-17-20 Ext End open
Flag S-A18-17-17 Connects to S-A18-17-18EXT
S-A18-17-20EXT
S-A18-17-18EXT
Extended corridor

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-19

Created	2018-05-15 13:47:54 EDT by Laura Giese
Updated	2018-06-05 14:40:05 EDT by Sam Edmonds
Location	36.5016006, -79.6750934
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/15
Date2	180515

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	19
Resource ID	S-A18-19
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	31.5
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	S
Channel condition	Poor
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	1.1
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.1

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	2
Bank to Bank (ft)	4
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Moderate
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0.75
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0.75

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Moderate
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0.35
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.35

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Absent
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	15

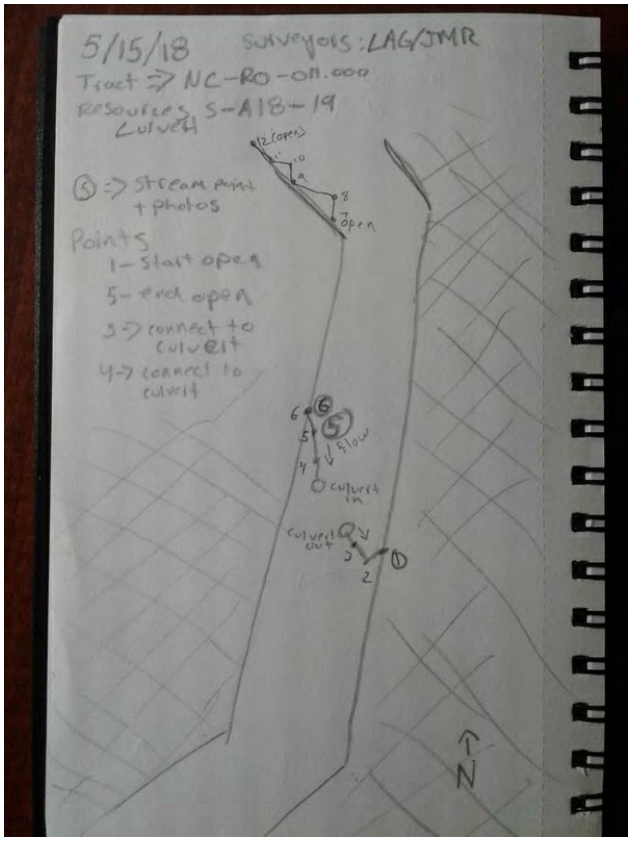
Stream Hydrology

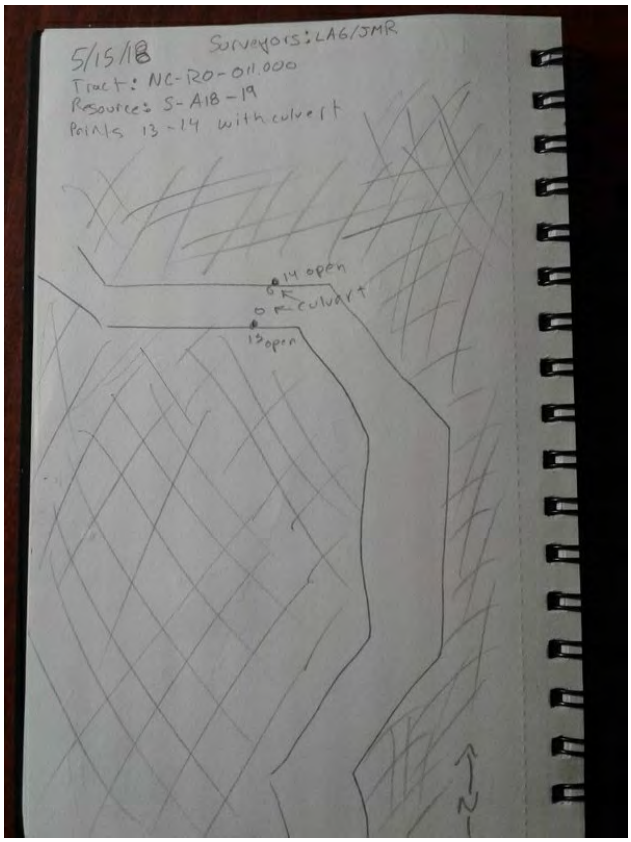
Presence of baseflow	Strong
Iron oxidizing bacteria	Weak
Leaf litter	Moderate
Sediment on plants or debris	Weak
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	9

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Stream Biology Total	7.5
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	W
Sketch of Stream	


5/15/18 Surveyors: LAG/JMR
Tract ⇒ NC-RO-011.000
Resources: S-A1B-19
Culvert
12 (open)
10
9
8
7 open
S ⇒ stream point + photos
Points
1- start open
5- end open
3 ⇒ connect to culvert
4 ⇒ connect to culvert
6
G
5
S
4
slow
culvert in
culvert out
3
2
1
N


5/15/18 Surveyors: LAG/JMR
Tract: NC-RO-011.000
Resource: S-A1B-19
Points 13-14 with culvert
14 open
R
culvert
13 open
N

S-A18-21

Created	2018-05-16 16:24:45 UTC by Laura Giese
Updated	2018-09-20 19:07:17 UTC by Susie Gifford (SBG)
Location	36.5346834, -79.6390815
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/16
Date2	180516

Resource Crew Info

Field Crew	Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	21
Resource ID	S-A18-21
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	25.25
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	NW
Channel condition	Poor
In stream habitat	Poor

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0.7
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0.7

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0.75
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0.7
Low poor (0.5) [Left]	0
Left bank total	1.45

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0.75
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0.3
Low poor (0.5) [Right]	0
Right bank total	1.05

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Weak
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Weak
Natural valley	Strong
Second or greater order channel	No
Stream Geomorphology Total	10

Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Weak
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7

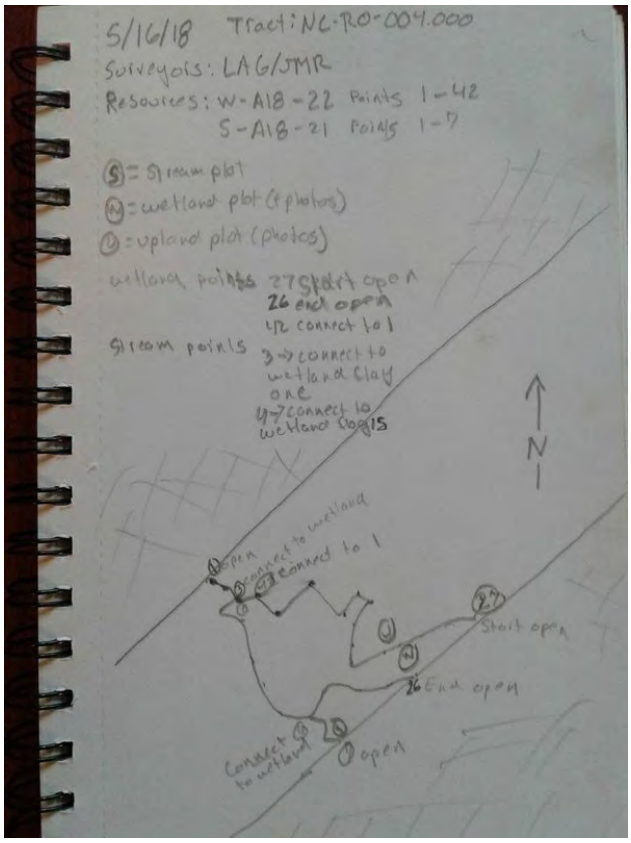
Stream Biology

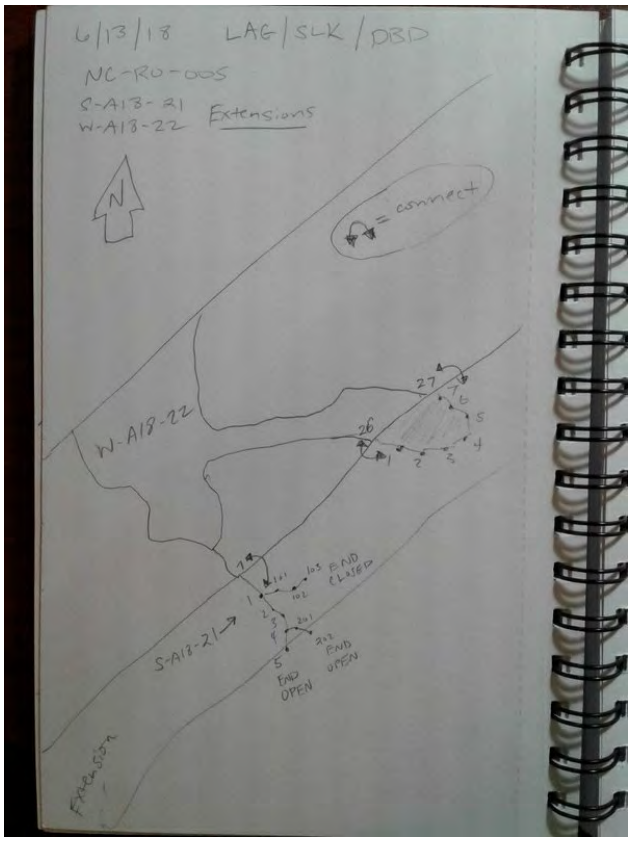
Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	8.25
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Additional stream photos for extension, P1 up, P2 dn, P3 across, headwaters multi-channel
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	N

Additional Stream Photos

Sketch of Stream





Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-23

Created	2018-05-17 09:05:49 EDT by Laura Giese
Updated	2018-06-05 14:43:53 EDT by Sam Edmonds
Location	36.5174116, -79.6577677
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/17
Date2	180517

Resource Crew Info

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	23
Resource ID	S-A18-23
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	37.5
Calculated Stream Type	Perennial
Wildlife Observed	banded snake in stream

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	SE
Channel condition	Suboptimal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	1.1
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.1

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	3
Bank to Bank (ft)	4
Bankfull Width (ft)	4

Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0.6
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0.42
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.02

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0.2
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0.42
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0.62

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Moderate
Depositional bars or benches	Moderate
Recent alluvial deposits	Moderate
Headcuts	Absent
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	Yes

Stream Geomorphology Total	19.5

Stream Hydrology

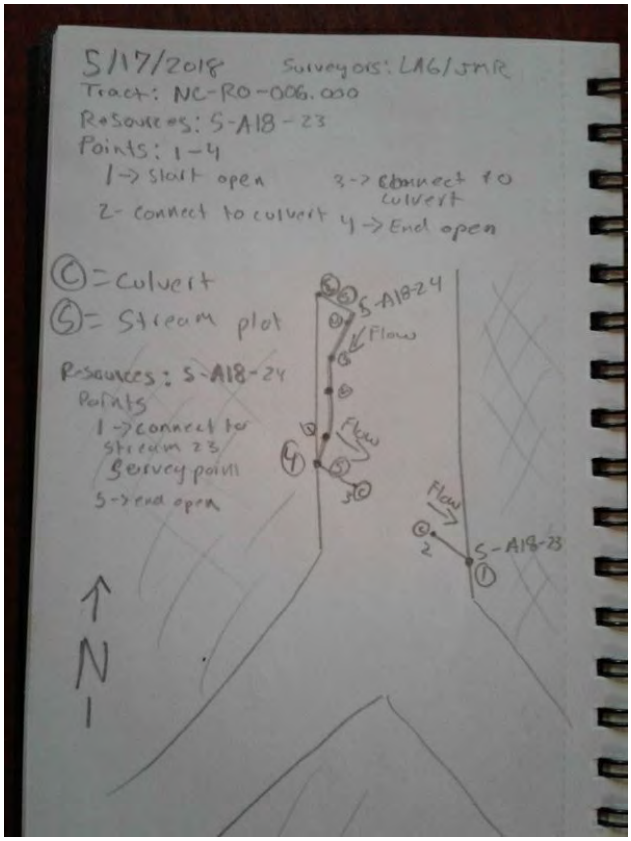
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Strong
Aquatic mullusks	Absent
Fish	Weak
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	9.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Water murky after heavy rains the day before
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NW

Downstream Stream Photo	
Downstream photo direction	SE
Across Stream Photo 1	
Across stream photo direction 1	SW

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-24

Created	2018-05-17 14:06:31 UTC by Laura Giese
Updated	2018-09-20 19:09:07 UTC by Susie Gifford (SBG)
Location	36.5177048, -79.6579117
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/17
Date2	180517

Resource Crew Info

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	24
Resource ID	S-A18-24
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	30
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	SW
Channel condition	Suboptimal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	1.3
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.3

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	1
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0.6
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0.42
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.02

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Weak
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	14

Stream Hydrology

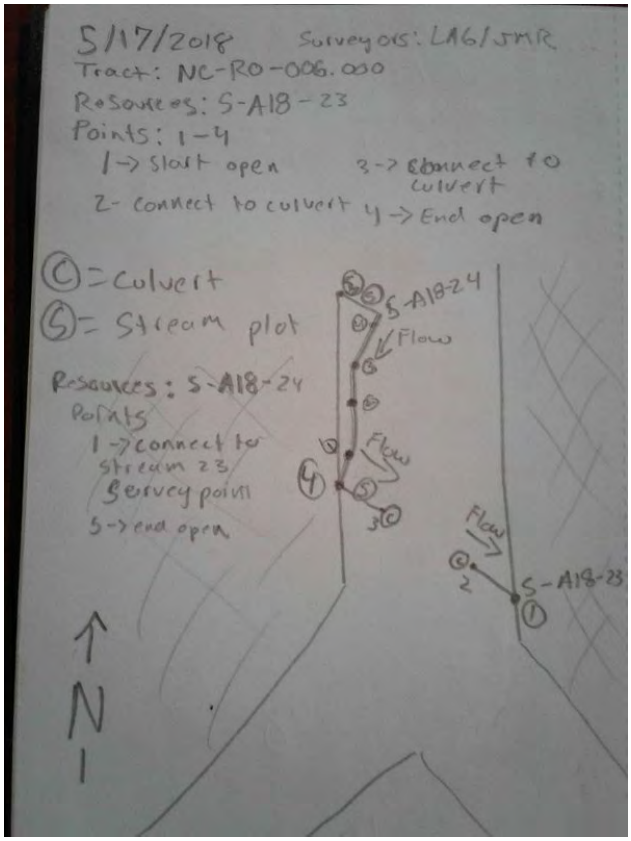
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Strong
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Weak
Macrobenthos	Moderate
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Stream Biology Total	7.5
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NW

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	SW

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-27

Created	2018-05-17 15:59:21 EDT by Laura Giese
Updated	2018-06-05 14:46:25 EDT by Sam Edmonds
Location	36.5172675, -79.6586258
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/17
Date2	180517

Resource Crew Info

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	27
Resource ID	S-A18-27
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	19
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SE
Channel condition	Optimal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	1.1
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.1

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0.85
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0.85

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0.85
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0.85

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	5.5

Stream Hydrology

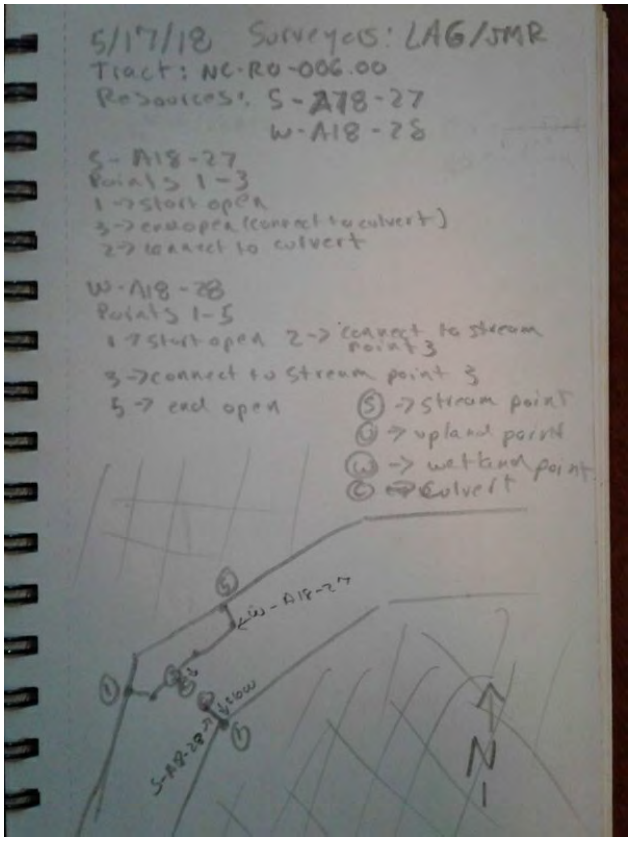
Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	OBL
Stream Biology Total	8.5
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NW

Downstream Stream Photo	
Downstream photo direction	SE
Across Stream Photo 1	
Across stream photo direction 1	E

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

WB-A18-29

Created	2018-05-17 21:05:07 UTC by Laura Giese
Updated	2018-09-20 19:18:02 UTC by Susie Gifford (SBG)
Location	36.5187886, -79.6541716
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/17
Date2	180517

Resource Crew Info

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	29
Resource ID	WB-A18-29
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-29
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Pond
Calculated Stream Score	0
Calculated Stream Type	Undetermined

Stream Conditions

Direction of Flow	SE

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	80
Average Water Width (ft)	80
Bank to Bank (ft)	85
Bankfull Width (ft)	85
Probed Stream Depth	> 36 inches

Left Bank

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Stream Geomorphology Total	0

Stream Hydrology

Stream Hydrology Total	0

Stream Biology

Stream Biology Total	0
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo	
Upstream photo direction	W
Downstream Stream Photo	
Downstream photo direction	NE

Across Stream Photo 1

Sketch of Stream

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-31

Created	2018-05-18 19:17:08 UTC by Laura Giese
Updated	2018-09-20 19:10:20 UTC by Susie Gifford (SBG)
Location	36.5166419, -79.6564391
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/18
Date2	180518

Resource Crew Info

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	31
Resource ID	S-A18-31
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	20.5
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	S
Channel condition	Optimal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0.35
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0.65
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0.35
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0.65
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	8

Stream Hydrology

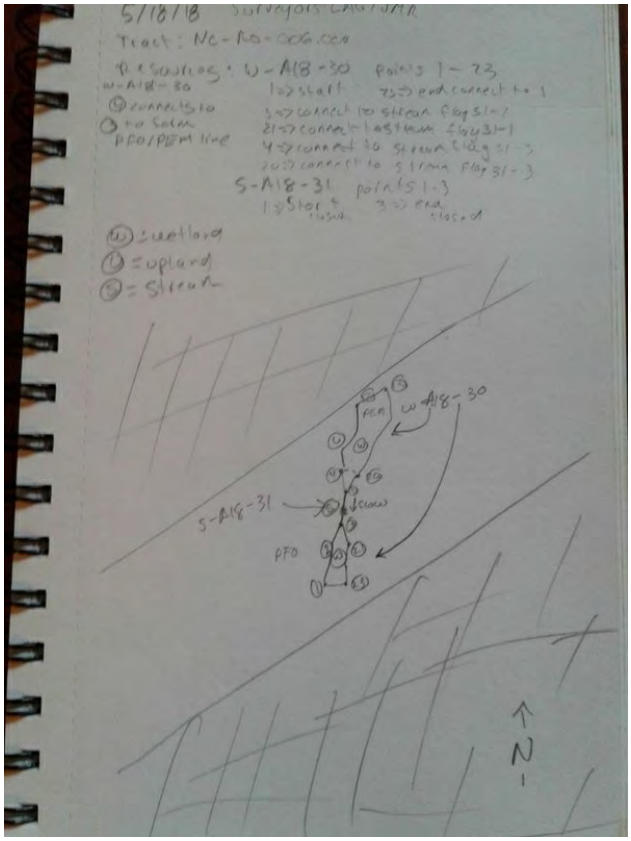
Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	5.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	7
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Stream channel in early stages of development
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	SE
Across Stream Photo 1	
Across stream photo direction 1	W

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-32

Created	2018-05-19 14:19:43 UTC by Laura Giese
Updated	2018-09-20 19:10:45 UTC by Susie Gifford (SBG)
Location	36.5165163, -79.6570818
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/19
Date2	180519

Resource Crew Info

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	32
Resource ID	S-A18-32
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	37
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	SE
Channel condition	Suboptimal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	1.3
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.3

Stream Measurements

OHWM Width (ft)	5
Average Water Width (ft)	3
Bank to Bank (ft)	6
Bankfull Width (ft)	5
Probed Stream Depth	6 to 12 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0.3
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0.5
Low poor (0.5) [Left]	0
Left bank total	0.8

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0.3
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0.5
Low poor (0.5) [Right]	0
Right bank total	0.8

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Weak
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Weak
Grade control	Moderate
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	20.5

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8.5

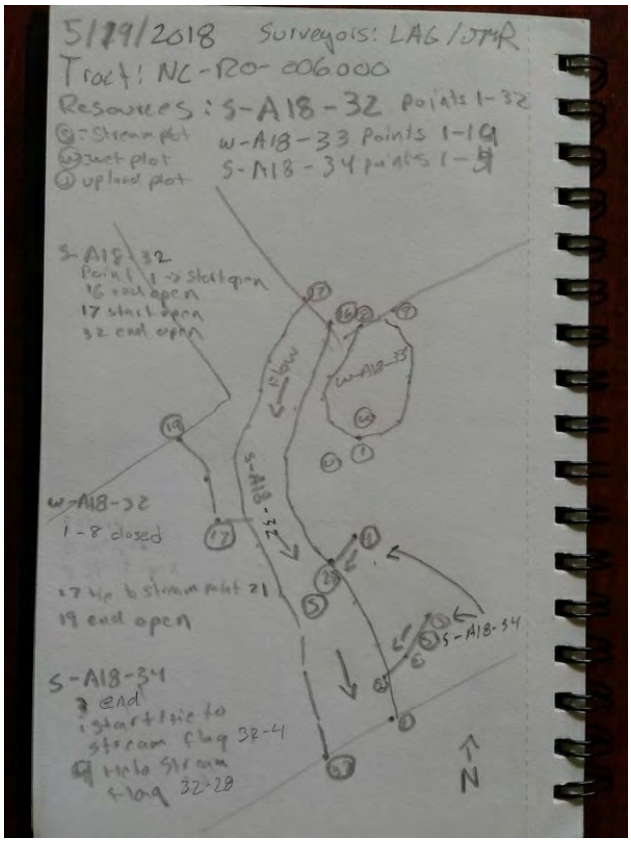
Stream Biology

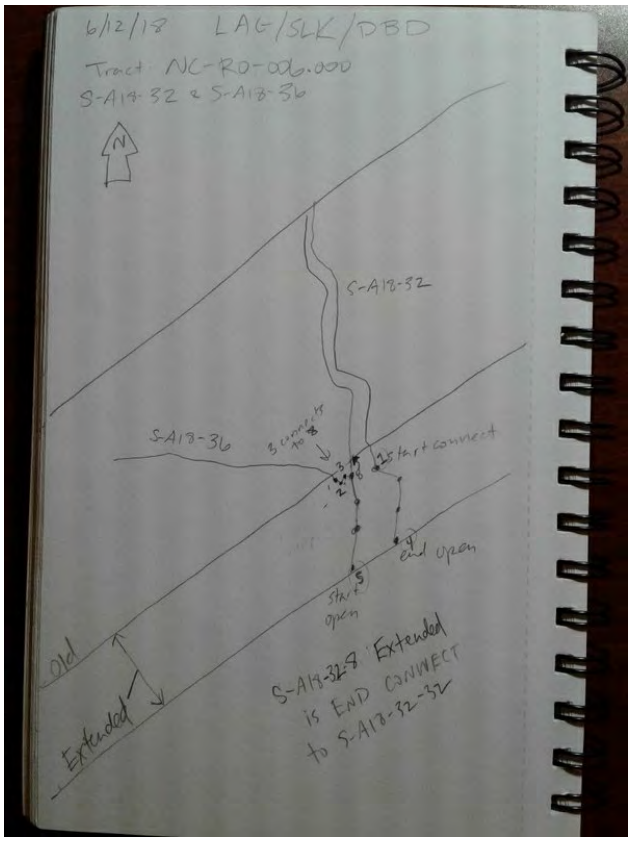
Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	8
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Flow conditions high after heavy rains. Could impact biology observations. Channel straight through existing ROW. Veg has covered rocklined banks. Additional stream photos for extension, P3 dn, P4 up, P5 across
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	W

Additional Stream Photos

Sketch of Stream





Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-34

Created	2018-05-19 10:48:53 EDT by Laura Giese
Updated	2018-06-05 14:53:33 EDT by Sam Edmonds
Location	36.5161081, -79.6566961
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/19
Date2	180519

Resource Crew Info

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	34
Resource ID	S-A18-34
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	23
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W
Channel condition	Marginal
In stream habitat	Poor

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Moderate
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Moderate
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Weak
Natural valley	Absent
Second or greater order channel	No
Stream Geomorphology Total	9.5

Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Weak
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	6

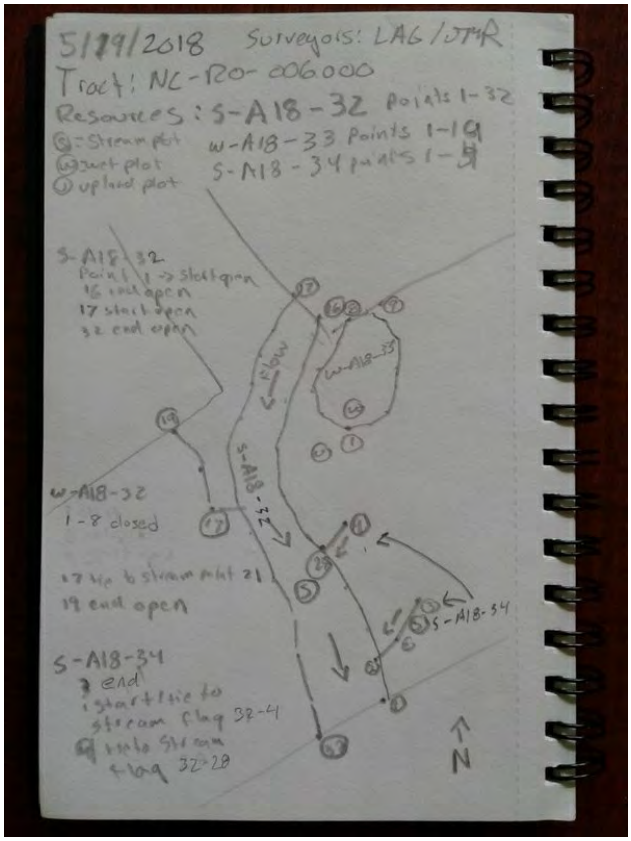
Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Stream Biology Total	7.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Two short side channels into main stream #32
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	W

Additional Stream Photos

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-36

Created	2018-05-19 11:49:58 EDT by Laura Giese
Updated	2018-06-13 11:32:52 EDT by Sam Edmonds
Location	36.5157772, -79.6569003
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/19
Date2	180519

Resource Crew Info

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	36
Resource ID	S-A18-36
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	32.5
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	E
Channel condition	Suboptimal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	2
Bank to Bank (ft)	4
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	1.1
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.1

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0.75
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0.4
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.15

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	17

Stream Hydrology

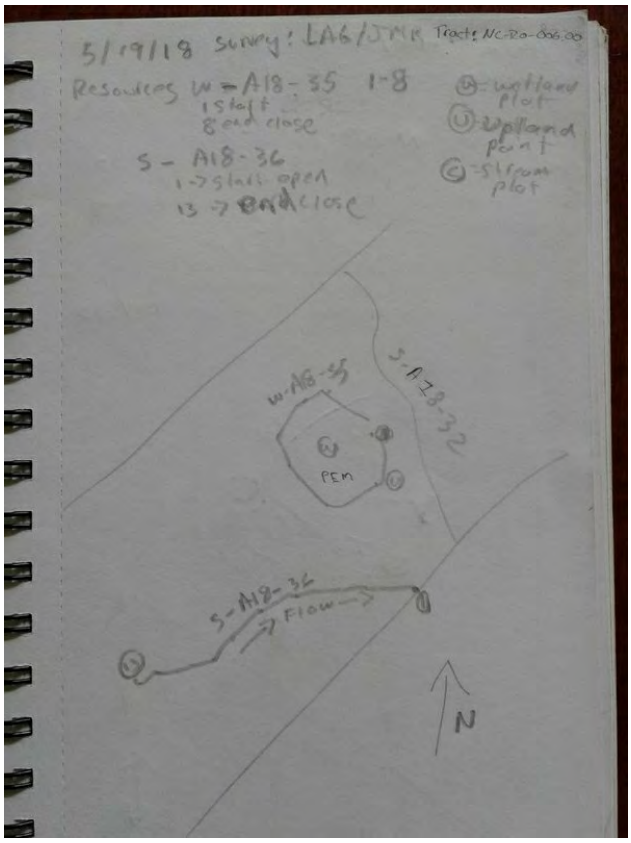
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7.5

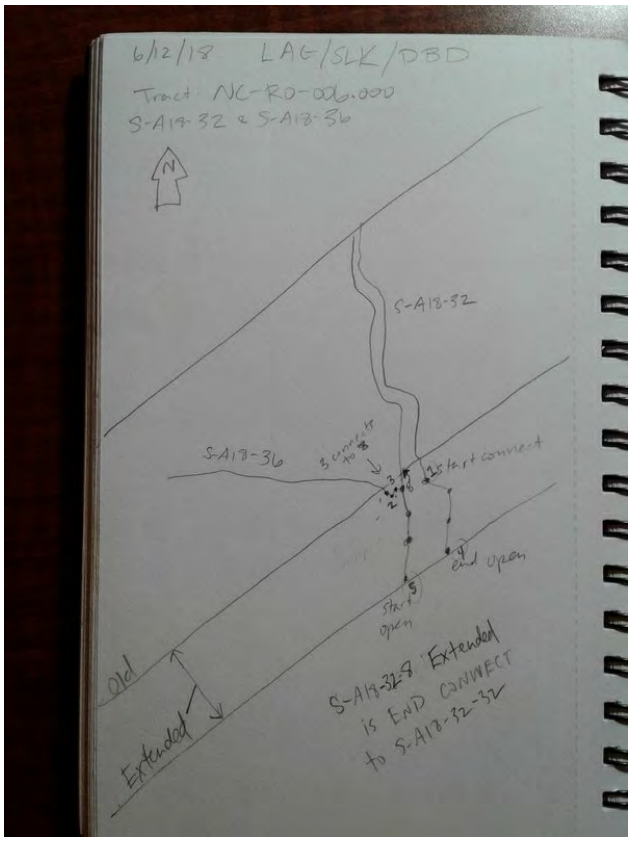
Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Weak
Algae	Absent
Stream Biology Total	8
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Additional stream photos for extension, P1 up, P2 dn, P3 across: flags 1-3
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	N
Additional Stream Photos	

Sketch of Stream





Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-37

Created	2018-05-19 13:41:53 EDT by Laura Giese
Updated	2018-06-13 11:33:19 EDT by Sam Edmonds
Location	36.5130826, -79.659903
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/19
Date2	180519

Resource Crew Info

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	37
Resource ID	S-A18-37
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	34.75
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	SW
Channel condition	Optimal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	1.3
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.3

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	2
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	1.1
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.1

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	1.2
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.2

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Weak
Active or relict floodplain	Weak
Depositional bars or benches	Moderate
Recent alluvial deposits	Weak
Headcuts	Moderate
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	19

Stream Hydrology

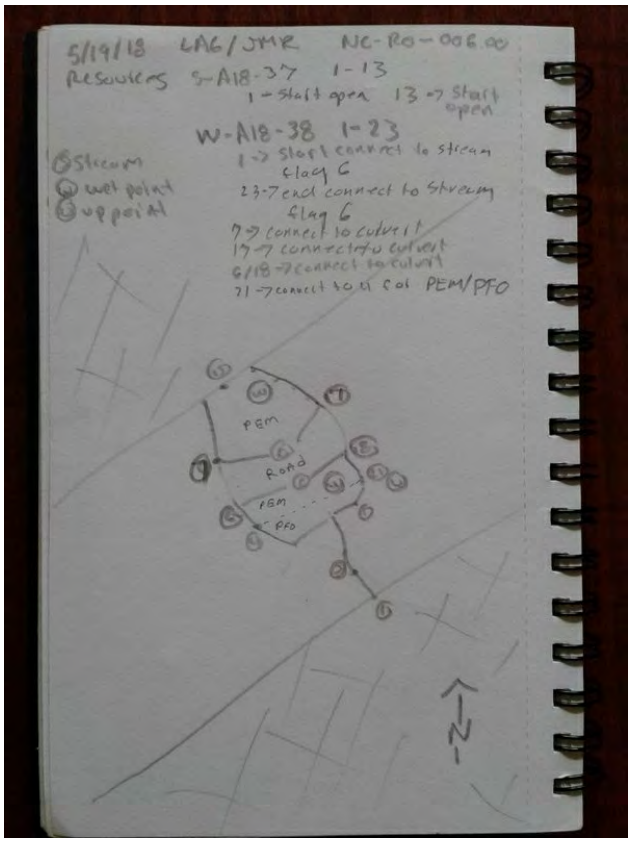
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8.5

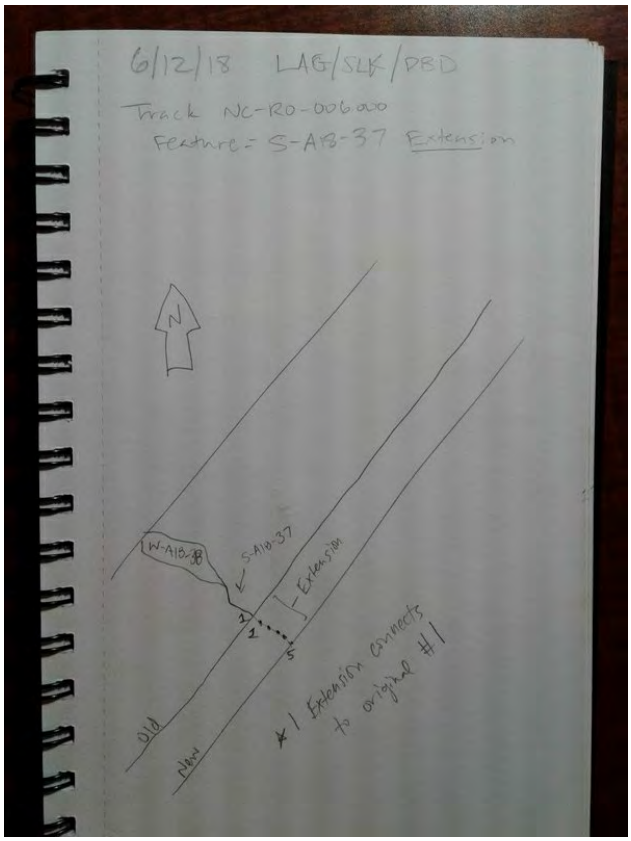
Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	7.25
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Additional stream photos for extention: P1 up, P2 dn, P3 across: flags 1-5
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	E
Additional Stream Photos	

Sketch of Stream





Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-40

Created	2018-05-21 09:46:08 EDT by Laura Giese
Updated	2018-06-14 13:49:08 EDT by Sam Edmonds
Location	36.5250325, -79.6476307
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/21
Date2	180521

Resource Crew Info

Field Crew	Joe Roy, Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	40
Resource ID	S-A18-40
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	30.5
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	S
Channel condition	Marginal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	1.3
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.3

Stream Measurements

OHWM Width (ft)	40
Average Water Width (ft)	30
Bank to Bank (ft)	45
Bankfull Width (ft)	45
Probed Stream Depth	> 36 inches

Left Bank

Left Bank Height (feet)	12
Left Bank Slope	> 35% (> 20 deg) Very Steep
Left Erosion Potential	Moderate
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	6
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Moderate
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0.3
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0.5
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0.8

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Strong
Depositional bars or benches	Moderate
Recent alluvial deposits	Strong
Headcuts	Absent
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	20.5

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Strong
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	10

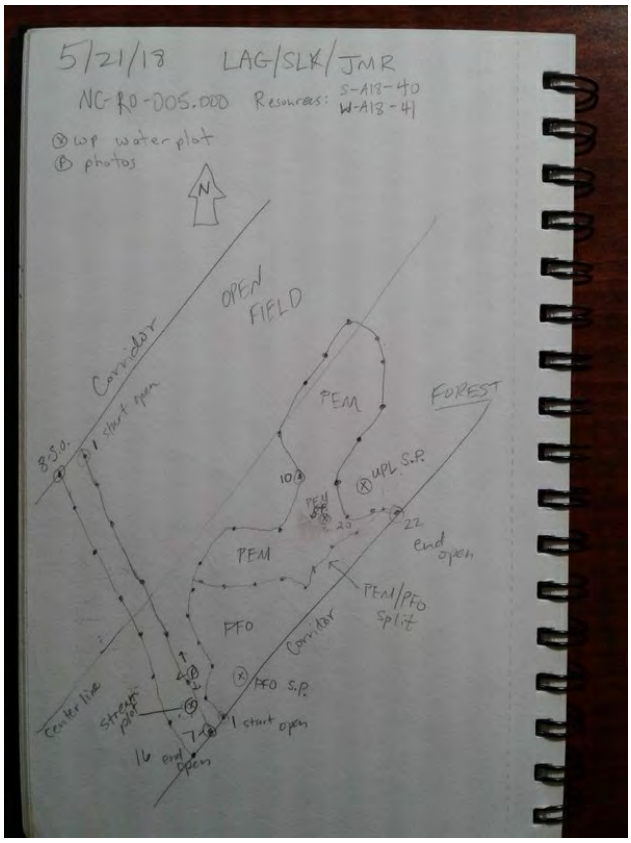
Stream Biology

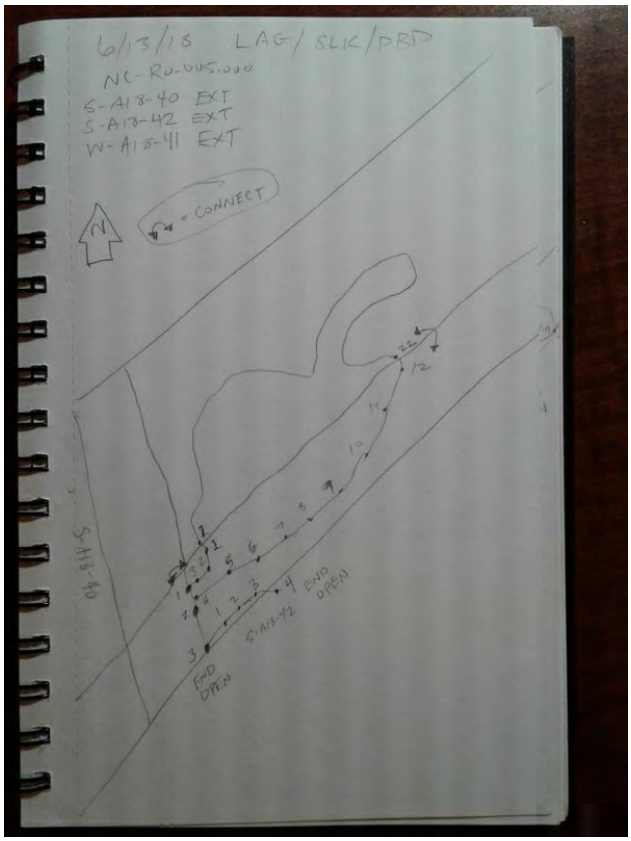
Stream Biology Total	0
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Water too high to determine biology on initial visit. Additional stream photos for extension, P1 up, P2 dn, P3 across
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	W

Additional Stream Photos

Sketch of Stream





Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-42

Created	2018-05-21 12:02:51 EDT by Laura Giese
Updated	2018-06-14 13:49:50 EDT by Sam Edmonds
Location	36.5264717, -79.6465469
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/21
Date2	180521

Resource Crew Info

Field Crew	Joe Roy, Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	42
Resource ID	S-A18-42
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	29
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	S
Channel condition	Suboptimal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	1.3
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.3

Stream Measurements

OHWM Width (ft)	10
Average Water Width (ft)	8
Bank to Bank (ft)	10
Bankfull Width (ft)	10
Probed Stream Depth	> 36 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0.3
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0.4
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0.7

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0.75
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0.35
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.1

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Moderate
Depositional bars or benches	Moderate
Recent alluvial deposits	Moderate
Headcuts	Absent
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	19.5

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Moderate
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	9.5

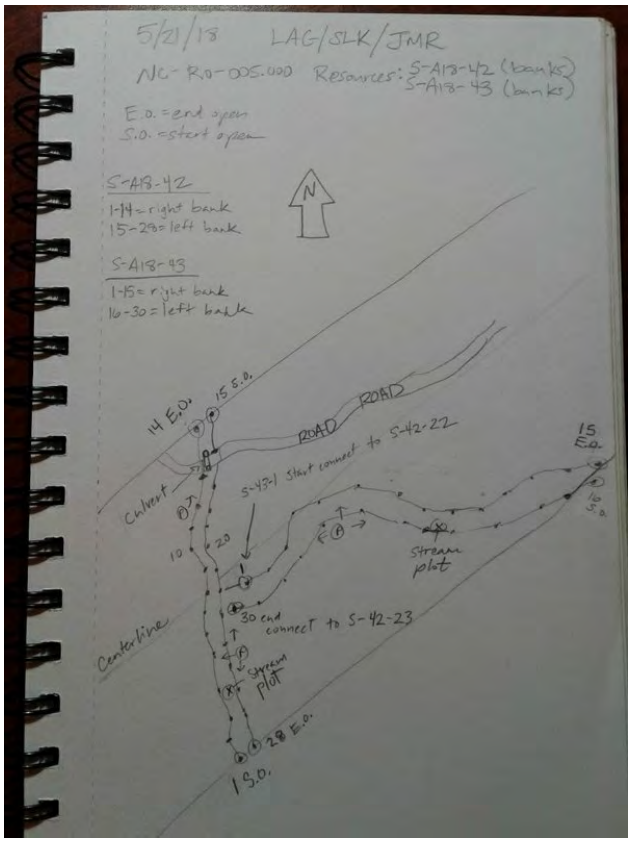
Stream Biology

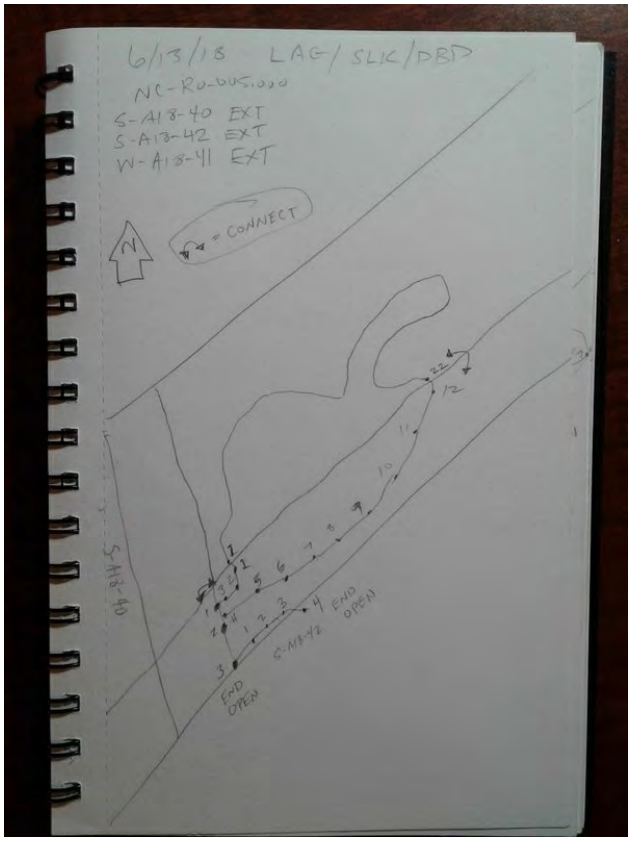
Stream Biology Total	0
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Recent heavy rains caused flooding. Couldn't determine biology during initial site visit. Additional stream photos for extension P1 up, P2 dn, P3 across: flag 0-13 and 100-113.
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

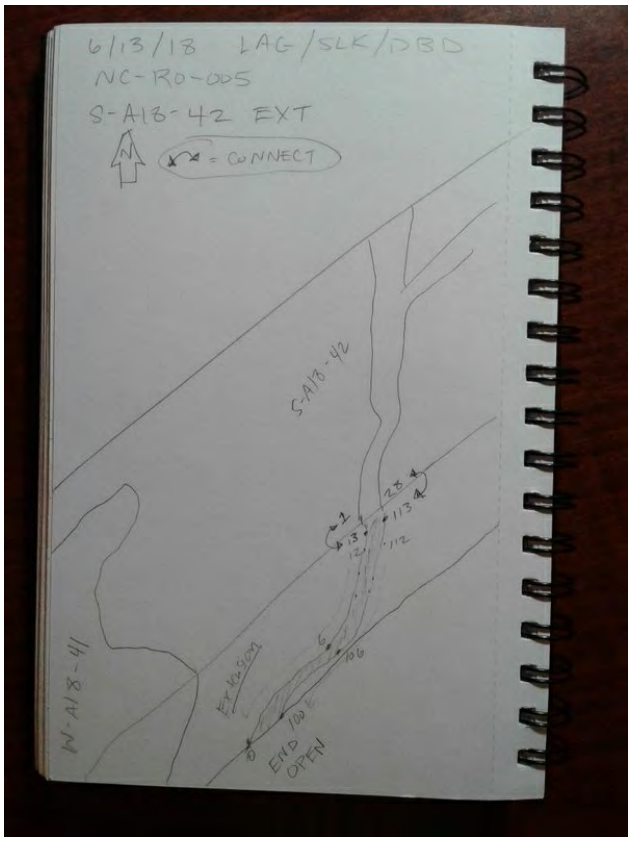
Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	E

Additional Stream Photos

Sketch of Stream




6/13/18 LAG/SLK/DBD
NC-RO-BUS.000
S-A18-40 EXT
S-A18-42 EXT
W-A18-41 EXT
= CONNECT
N
S-A18-40
S-A18-42
END
OPEN
END
OPEN



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-43

Created	2018-05-21 12:24:58 EDT by Laura Giese
Updated	2018-06-18 15:53:02 EDT by Sam Edmonds
Location	36.5272547, -79.6458659
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/21
Date2	180521

Resource Crew Info

Field Crew	Joe Roy, Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	43
Resource ID	S-A18-43
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	31
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	SW
Channel condition	Marginal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	4
Average Water Width (ft)	3
Bank to Bank (ft)	5
Bankfull Width (ft)	5
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Moderate
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0.6
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0.3
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0.9

Right Bank

Right Bank Height (feet)	6
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Moderate
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0.8
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0.3
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.1

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Weak
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Weak
Natural valley	Weak
Second or greater order channel	Yes
Stream Geomorphology Total	14

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Moderate
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	9.5

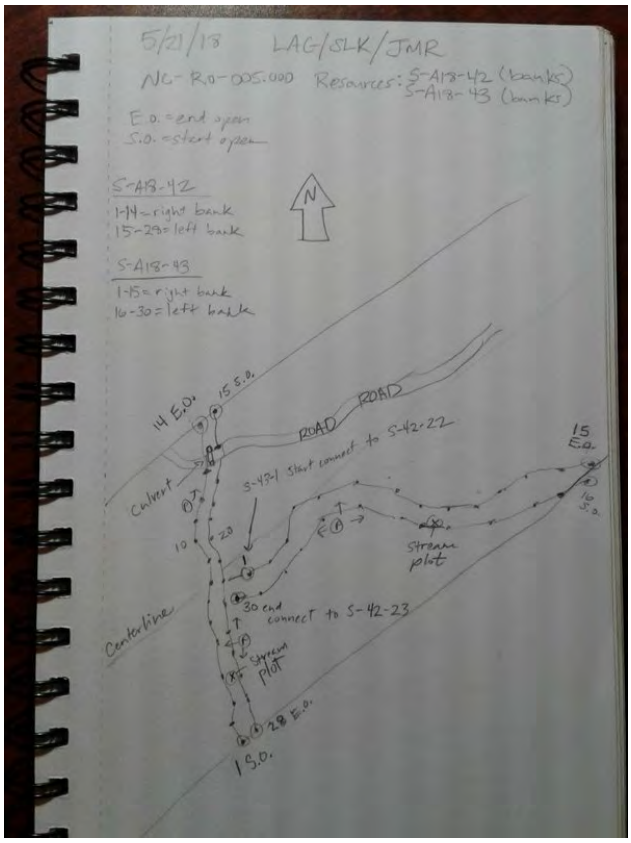
Stream Biology

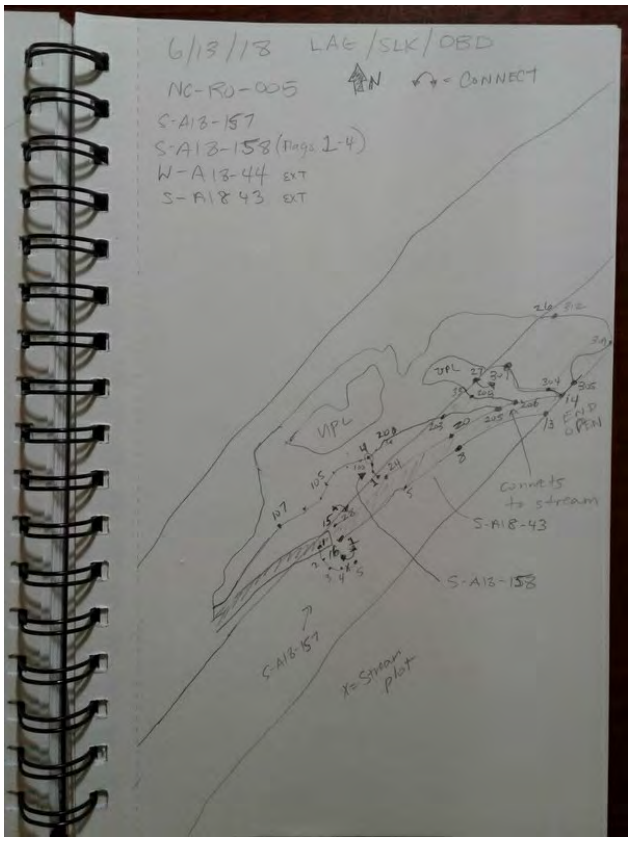
Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Stream Biology Total	7.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Recent heavy rains caused flooding during initial site visit. Additional stream photos for extension, P1 across, P2 up, P3 dn: flags 1-13, 14-28
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NW

Downstream Stream Photo	
Downstream photo direction	SE
Across Stream Photo 1	
Across stream photo direction 1	N

Additional Stream Photos

Sketch of Stream





Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

WB-A18-45

Created	2018-05-21 18:47:28 UTC by Laura Giese
Updated	2018-09-20 19:18:32 UTC by Susie Gifford (SBG)
Location	36.5338265, -79.6425505
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/21
Date2	180521

Resource Crew Info

Field Crew	Joe Roy, Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	45
Resource ID	WB-A18-45
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-45

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Pond
Calculated Stream Score	0
Calculated Stream Type	Undetermined

Stream Conditions

Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

Left Bank

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0

Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Stream Geomorphology Total	0

Stream Hydrology

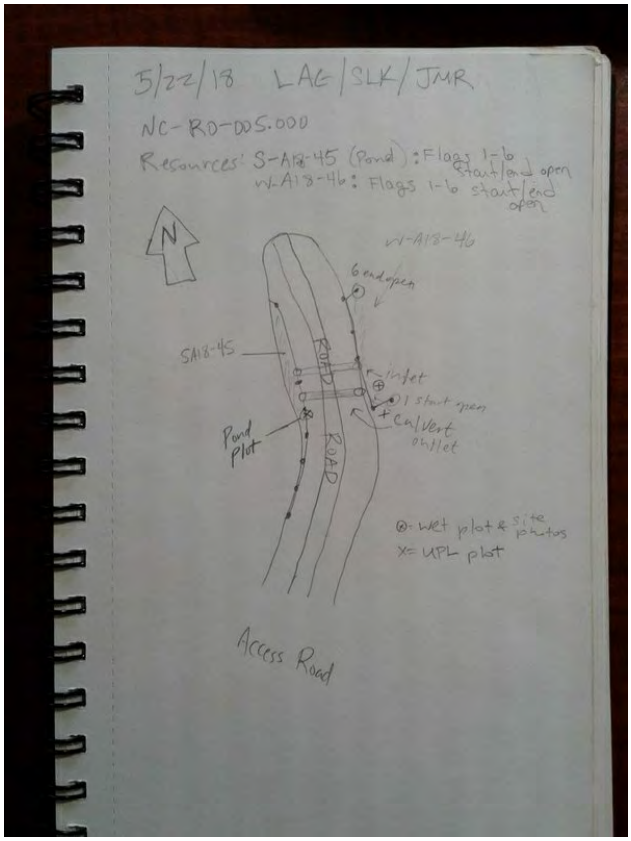
Stream Hydrology Total	0

Stream Biology

Stream Biology Total	0
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SW

Downstream Stream Photo	
Downstream photo direction	N
Across Stream Photo 1	
Across stream photo direction 1	W

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-47

Created	2018-05-23 15:11:19 UTC by Laura Giese
Updated	2018-09-20 19:11:00 UTC by Susie Gifford (SBG)
Location	36.5029788, -79.6704668
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/23
Date2	180523

Resource Crew Info

Field Crew	Joe Roy, Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	47
Resource ID	S-A18-47
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	30.5
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	SE
Channel condition	Marginal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	1.3
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.3

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	2
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Moderate
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0.75
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0.25
Right bank total	1

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Weak
Natural valley	Weak
Second or greater order channel	Yes
Stream Geomorphology Total	14

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

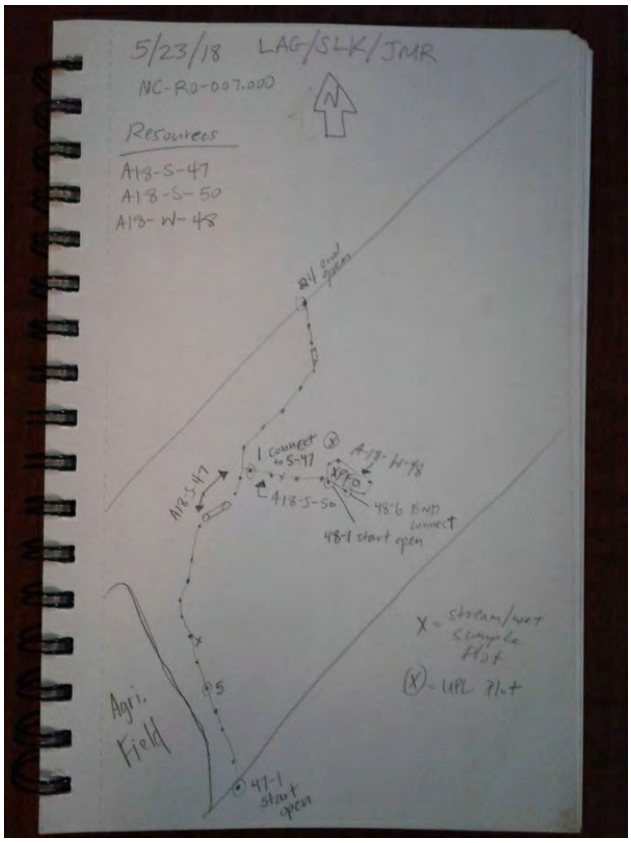
Stream Biology

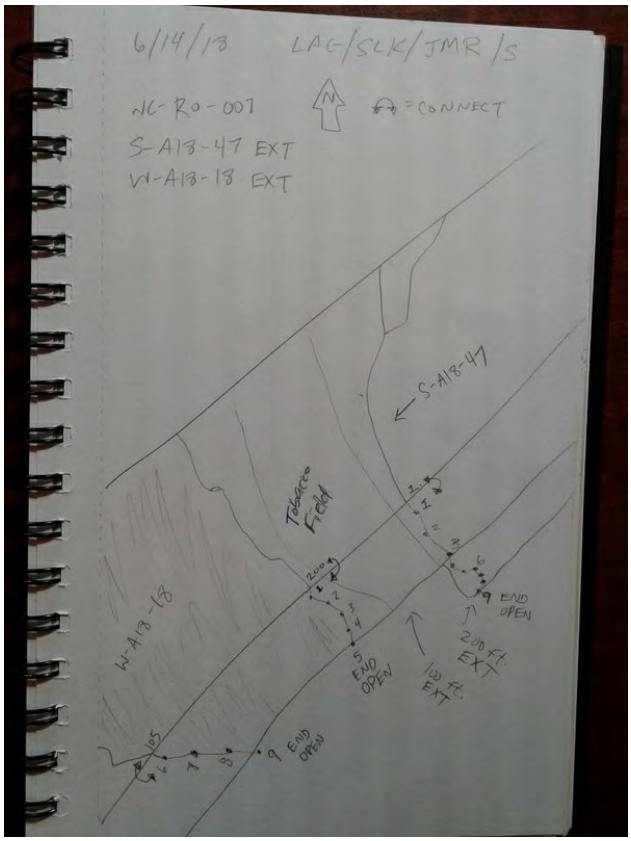
Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Stream Biology Total	8.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Additional stream photos for extension, P1 up, P2 dn, P3 across. Flags 1-9
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NW

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	E

Additional Stream Photos

Sketch of Stream





Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-50

Created	2018-05-23 13:18:51 EDT by Laura Giese
Updated	2018-06-05 15:25:58 EDT by Sam Edmonds
Location	36.5033196, -79.6703885
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/23
Date2	180523

Resource Crew Info

Field Crew	Joe Roy, Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	50
Resource ID	S-A18-50
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	14
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W
Channel condition	Suboptimal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	1.2
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.2

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	1.2
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.2

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Absent
Natural valley	Absent
Second or greater order channel	No
Stream Geomorphology Total	7

Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	No
Stream Hydrology Total	1

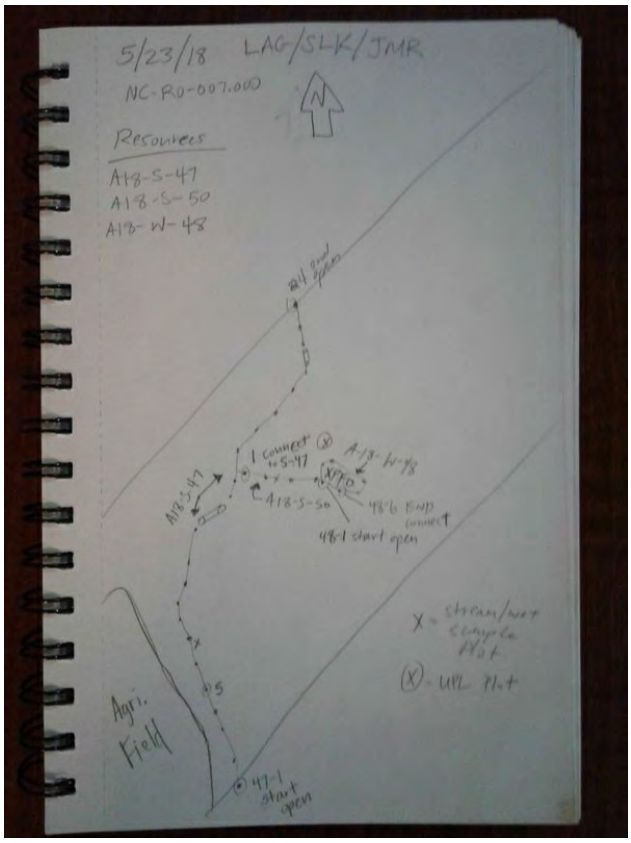
Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Approximately 10 feet of downstream portion is intermittent.
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	N

Additional Stream Photos

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-51

Created	2018-05-24 13:05:42 UTC by Laura Giese
Updated	2018-09-20 19:11:13 UTC by Susie Gifford (SBG)
Location	36.5045246, -79.6691198
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/24
Date2	180524

Resource Crew Info

Field Crew	Joe Roy, Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	51
Resource ID	S-A18-51
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	22
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SW
Channel condition	Suboptimal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	1.3
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.3

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0.2
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0.65
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0.85

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Weak
Particle size of stream substrate	Moderate
Active or relict floodplain	Weak
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	12.5

Stream Hydrology

Presence of baseflow	Weak

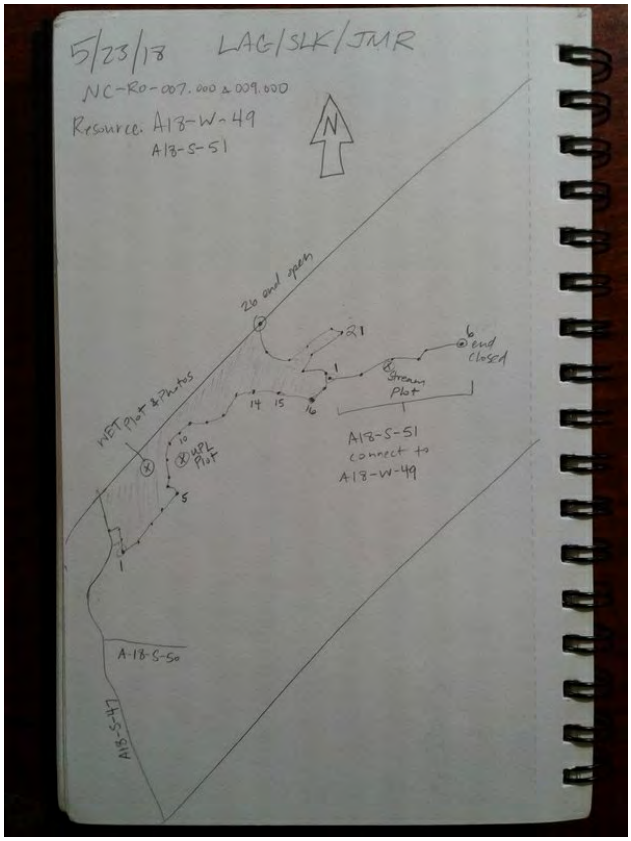
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	No
Stream Hydrology Total	2.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	7
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Across Stream Photo 1	
Across stream photo direction 2	N

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-52

Created	2018-05-24 14:20:19 EDT by Laura Giese
Updated	2018-06-11 10:16:02 EDT by Sam Edmonds
Location	36.4891615, -79.6841348
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/24
Date2	180524

Resource Crew Info

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	52
Resource ID	S-A18-52
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	44.5
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	NE
Channel condition	Suboptimal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	1.1
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.1

Stream Measurements

OHWM Width (ft)	20
Average Water Width (ft)	15
Bank to Bank (ft)	23
Bankfull Width (ft)	23
Probed Stream Depth	6 to 12 inches

Left Bank

Left Bank Height (feet)	5
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Moderate
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0.75
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0.35
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.1

Right Bank

Right Bank Height (feet)	6
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Moderate
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0.75
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0.35
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.1

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Strong
Particle size of stream substrate	Moderate
Active or relict floodplain	Weak
Depositional bars or benches	Moderate
Recent alluvial deposits	Weak
Headcuts	Weak
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	21

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Weak
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	9.5

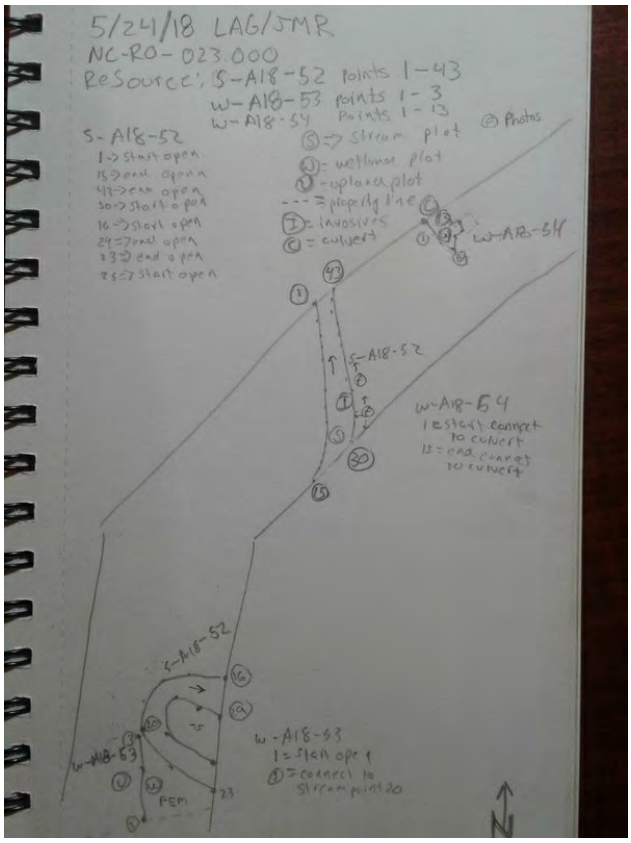
Stream Biology

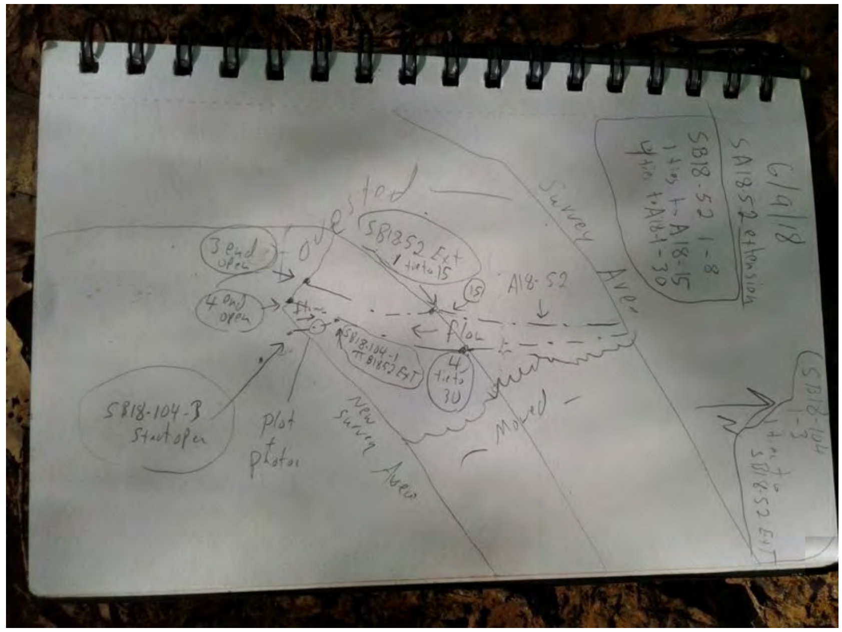
Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Strong
Aquatic mullusks	Weak
Fish	Strong
Crayfish	Strong
Amphibians	Moderate
Algae	Absent
Stream Biology Total	14
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Downstream portion in ROW is narrower and straightened. Stream extended 6/9/2018.
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SW

Downstream Stream Photo	
Downstream photo direction	NE
Across Stream Photo 1	
Across stream photo direction 1	W

Additional Stream Photos

Sketch of Stream




SB18-104-3
Start open
Plot
photos
New
Survey
Ave
A18-52
Flow

S-A18-55

Created	2018-05-25 15:39:52 UTC by Laura Giese
Updated	2018-09-06 13:18:48 UTC by Will Buetow
Location	36.2824509, -79.5640092
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/25
Date2	180525

Resource Crew Info

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	55
Resource ID	S-A18-55
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	34
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	W
Channel condition	Marginal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	1.1
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.1

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	2
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0.75
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0.75

Right Bank

Right Bank Height (feet)	5
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0.75
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0.75

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Absent
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	16.5

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Moderate
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	10

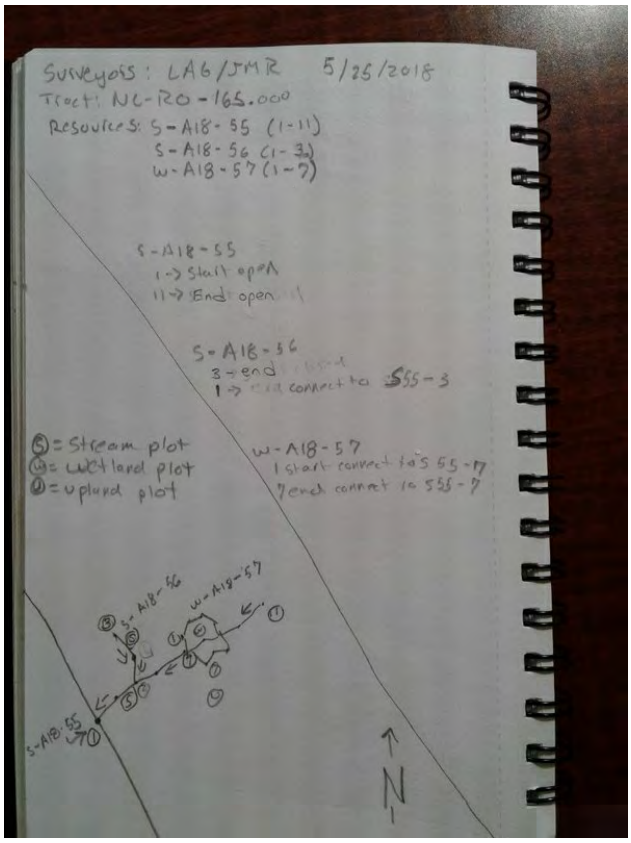
Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Stream Biology Total	7.5
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Across Stream Photo 1	
Across stream photo direction 1	N

Additional Stream Photos

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-56

Created	2018-05-25 13:22:27 UTC by Laura Giese
Updated	2018-09-20 19:11:56 UTC by Susie Gifford (SBG)
Location	36.2827448, -79.5641561
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/25
Date2	180525

Resource Crew Info

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	56
Resource ID	S-A18-56
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	19.25
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	SE
Channel condition	Optimal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0.85
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0.85

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0.85
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0.85

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Weak
Second or greater order channel	No
Stream Geomorphology Total	5.5

Stream Hydrology

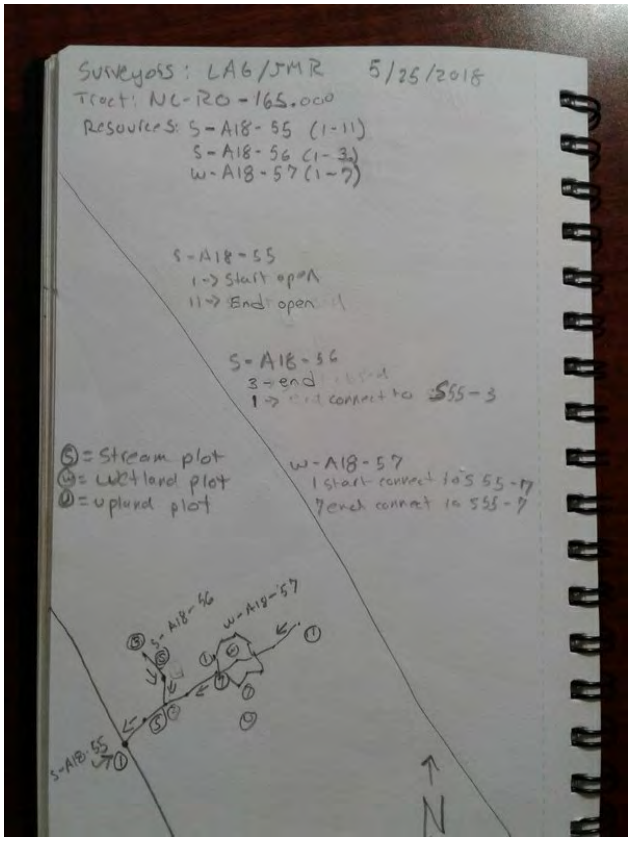
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	6.75
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	E

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-58

Created	2018-05-25 15:30:24 UTC by Laura Giese
Updated	2018-08-27 15:05:27 UTC by Will Buetow
Location	36.282399, -79.5639087
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/25
Date2	180525

Resource Crew Info

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	58
Resource ID	S-A18-58
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	25.5
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	N
Channel condition	Poor
In stream habitat	Poor

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	High
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0.2
Low marginal (0.75) [Left]	0.6
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0.8

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	High
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0.75
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0.75

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	8.5

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Moderate
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	9.5

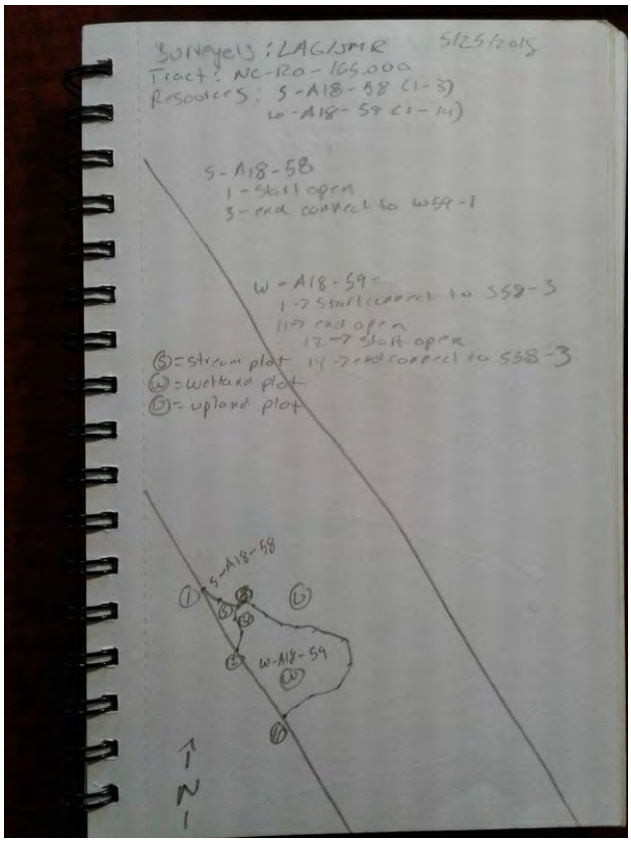
Stream Biology

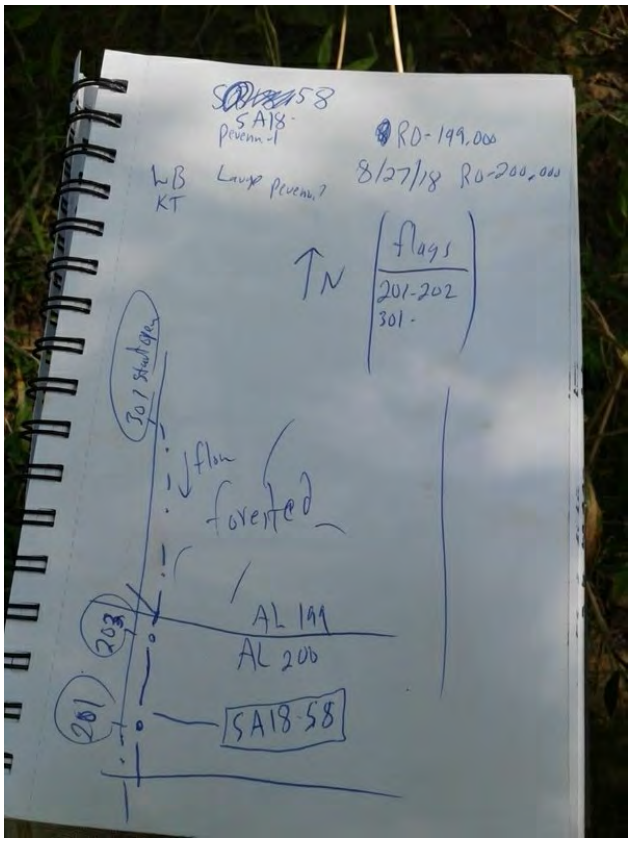
Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Stream Biology Total	7.5
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SE

Downstream Stream Photo	
Downstream photo direction	NW
Across Stream Photo 1	
Across stream photo direction 1	W

Additional Stream Photos

Sketch of Stream





Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-60

Created	2018-05-25 14:12:44 EDT by Laura Giese
Updated	2018-06-07 08:33:41 EDT by Sam Edmonds
Location	36.2882185, -79.5718865
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/25
Date2	180525

Resource Crew Info

Field Crew	Jim Bolduc, Joe Roy, Laura Giese, Simon King, Tony Tredway
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	60
Resource ID	S-A18-60
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	32
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	SW
Channel condition	Marginal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	4
Average Water Width (ft)	3
Bank to Bank (ft)	6
Bankfull Width (ft)	6
Probed Stream Depth	6 to 12 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0.85
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0.85

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0.85
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0.85

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Weak
Depositional bars or benches	Moderate
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	16.5

Stream Hydrology

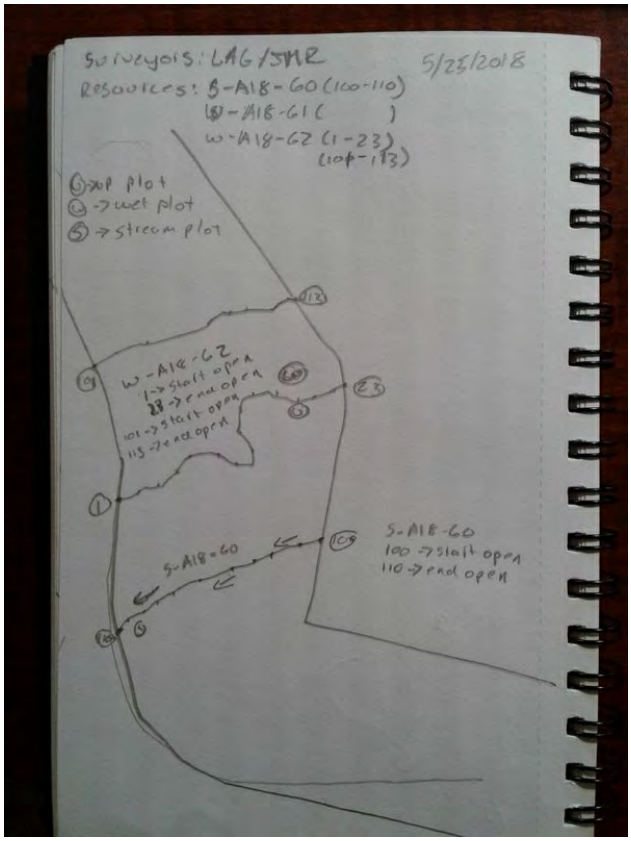
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	7.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Water is murky impeding biological assessment. Area has been harvested recently
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	N

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

WB-A18-63

Created	2018-05-26 12:58:57 UTC by Laura Giese
Updated	2018-09-20 19:18:51 UTC by Susie Gifford (SBG)
Location	36.0668401, -79.3600874
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/26
Date2	180526

Resource Crew Info

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
Resource Series Number	63
Resource ID	WB-A18-63
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-63
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Pond
Calculated Stream Score	2.25
Calculated Stream Type	Ephemeral

Stream Conditions

Direction of Flow	W

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

Left Bank

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0

High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Stream Geomorphology Total	0

Stream Hydrology

Stream Hydrology Total	0

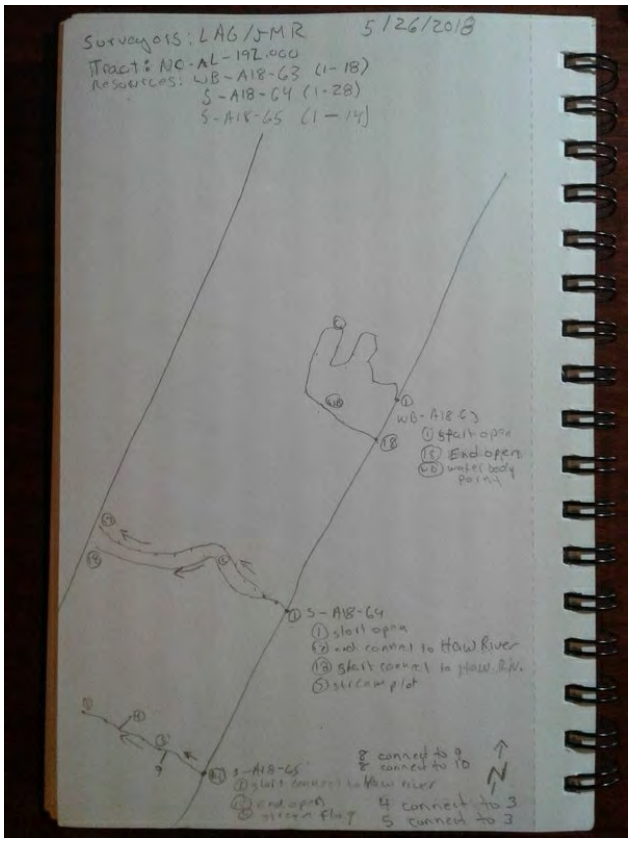
Stream Biology

Amphibians	Strong
Wetland plants in streambed	FACW
Stream Biology Total	2.25
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Landscaped/ornamental retention pond
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SE

Downstream Stream Photo	
Downstream photo direction	NW
Across Stream Photo 1	
Across stream photo direction 1	S

Additional Stream Photos

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-64

Created	2018-05-26 09:29:32 EDT by Laura Giese
Updated	2018-06-05 15:47:53 EDT by Sam Edmonds
Location	36.0663984, -79.3598994
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/26
Date2	180526

Resource Crew Info

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
Resource Series Number	64
Resource ID	S-A18-64
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	36.5
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	W
Channel condition	Poor
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	6
Average Water Width (ft)	4
Bank to Bank (ft)	8
Bankfull Width (ft)	8
Probed Stream Depth	6 to 12 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	> 35% (> 20 deg) Very Steep
Left Erosion Potential	High
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0.2
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0.4
Low poor (0.5) [Left]	0
Left bank total	0.6

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	> 35% (> 20 deg) Very Steep
Right Erosion Potential	High
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0.2
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0.4
Low poor (0.5) [Right]	0
Right bank total	0.6

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Moderate
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	18

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Moderate
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	9.5

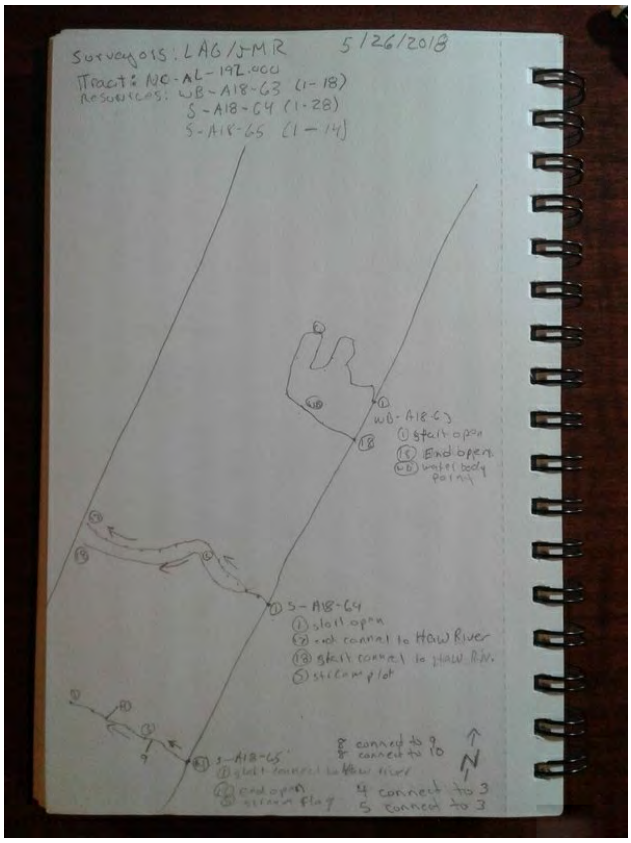
Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Moderate
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	9
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	

Additional Stream Photos

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-65

Created	2018-05-26 10:44:58 EDT by Laura Giese
Updated	2018-06-05 15:55:26 EDT by Sam Edmonds
Location	36.064661, -79.3608172
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/26
Date2	180526

Resource Crew Info

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
Resource Series Number	65
Resource ID	S-A18-65
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	23.5
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W
Channel condition	Marginal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0.2
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0.4
Low poor (0.5) [Left]	0
Left bank total	0.6

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0.2
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0.4
Low poor (0.5) [Right]	0
Right bank total	0.6

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Weak
Natural valley	Absent
Second or greater order channel	No
Stream Geomorphology Total	9.5

Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Weak
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7.5

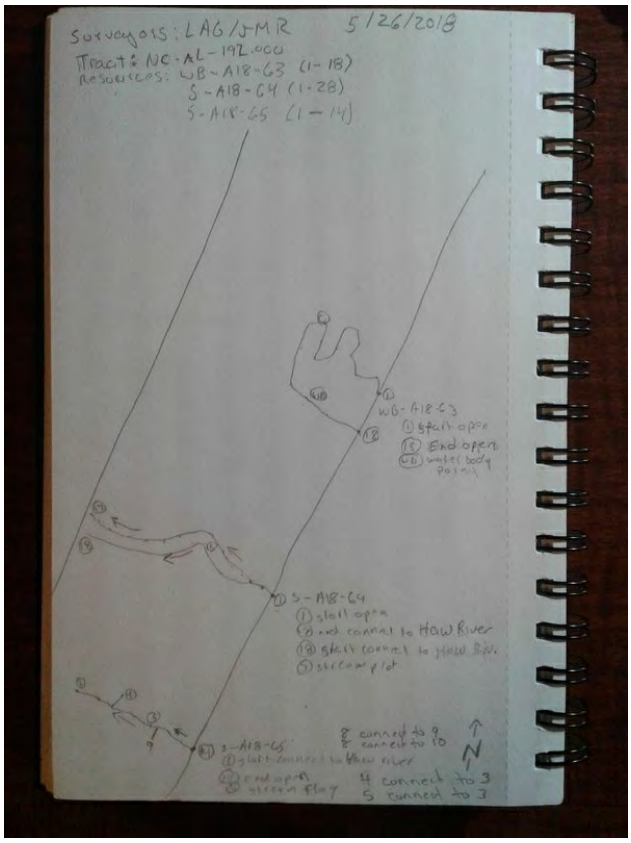
Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Stream Biology Total	6.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Upper half is ephemeral receiving stormwater from parking lot
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	N
Across Stream Photo 1	
Across stream photo direction 1	NE

Additional Stream Photos

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-66

Created	2018-05-26 12:57:24 EDT by Laura Giese
Updated	2018-06-05 15:56:40 EDT by Sam Edmonds
Location	36.0625536, -79.3617981
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/26
Date2	180526

Resource Crew Info

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
Resource Series Number	66
Resource ID	S-A18-66
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	21.5
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	SW
Channel condition	Marginal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Low
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Absent
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Absent
Second or greater order channel	No
Stream Geomorphology Total	5

Stream Hydrology

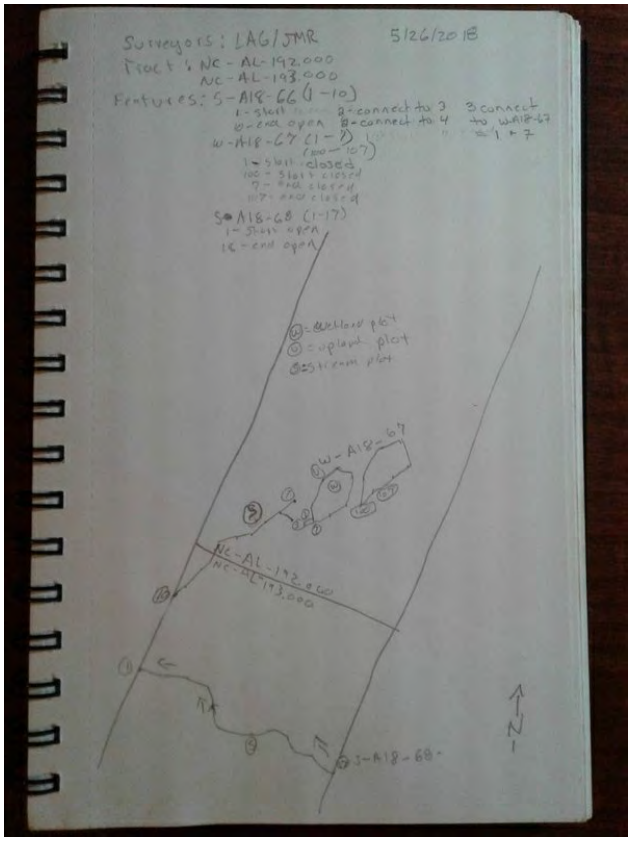
Presence of baseflow	Moderate
Iron oxidizing bacteria	Strong
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	10

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6.5
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-68

Created	2018-05-26 17:18:30 UTC by Laura Giese
Updated	2018-08-28 21:28:59 UTC by Will Buetow
Location	36.0625361, -79.3618258
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/26
Date2	180526

Resource Crew Info

Field Crew	Joe Roy, Laura Giese, Tony Tredway
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	68
Resource ID	S-A18-68
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	36
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	NW
Channel condition	Marginal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	1
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Moderate
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Moderate
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	17.5

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Weak
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	9.5

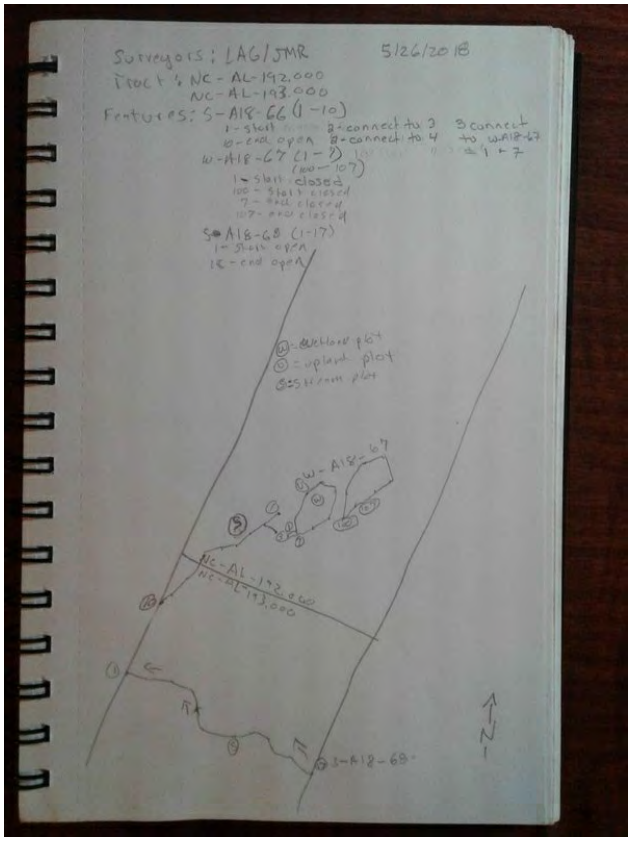
Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Moderate
Algae	Absent
Stream Biology Total	9
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	S

Downstream Stream Photo	
Downstream photo direction	NW
Across Stream Photo 1	
Across stream photo direction 1	W

Additional Stream Photos

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-69

Created	2018-05-29 09:07:11 EDT by Laura Giese
Updated	2018-06-06 10:51:01 EDT by Sam Edmonds
Location	36.1544024, -79.4381464
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/29
Date2	180529

Resource Crew Info

Field Crew	Joe Roy, Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	69
Resource ID	S-A18-69
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	22.5
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	W
Channel condition	Suboptimal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0.75
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0.25
Left bank total	1

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0.75
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0.2
Low poor (0.5) [Right]	0
Right bank total	0.95

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Weak
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Absent
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	9

Stream Hydrology

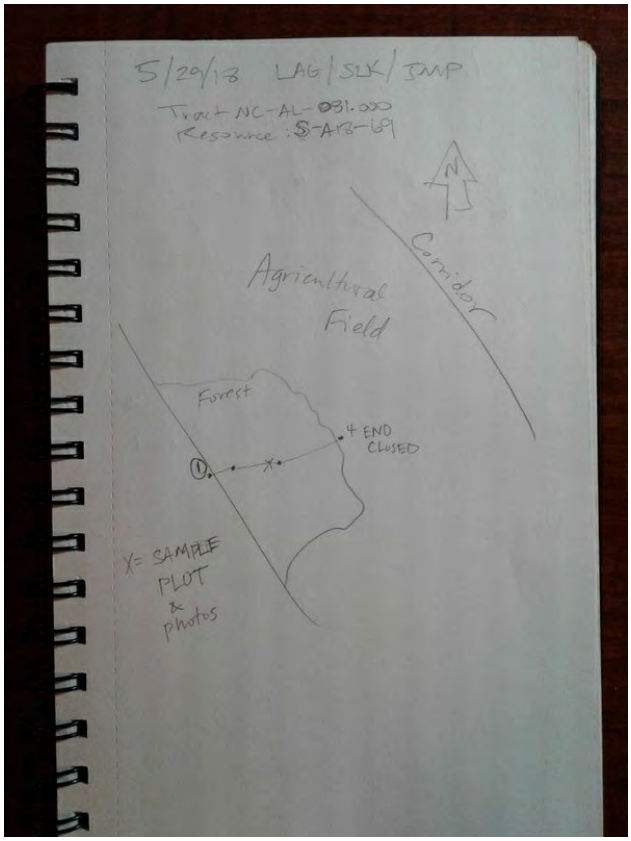
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Channel starts at Ag field. Slightly higher flow after rains. Channel braids at bottom
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	S

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-70

Created	2018-05-29 14:39:08 UTC by Laura Giese
Updated	2018-09-10 18:59:48 UTC by Will Buetow
Location	36.1499139, -79.4300962
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/29
Date2	180529

Resource Crew Info

Field Crew	Joe Roy, Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	70
Resource ID	S-A18-70
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	42
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	S
Channel condition	Suboptimal
In stream habitat	Optimal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	9
Average Water Width (ft)	8
Bank to Bank (ft)	10
Bankfull Width (ft)	10
Probed Stream Depth	6 to 12 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Strong
Particle size of stream substrate	Strong
Active or relict floodplain	Weak
Depositional bars or benches	Moderate
Recent alluvial deposits	Weak
Headcuts	Weak
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	22

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Strong
Aquatic mullusks	Absent
Fish	Moderate
Crayfish	Moderate
Amphibians	Moderate
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	12
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Water is murky after heavy rains the night before
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	W

Additional Stream Photos

downstream south

upstream north

across stream west

across stream east

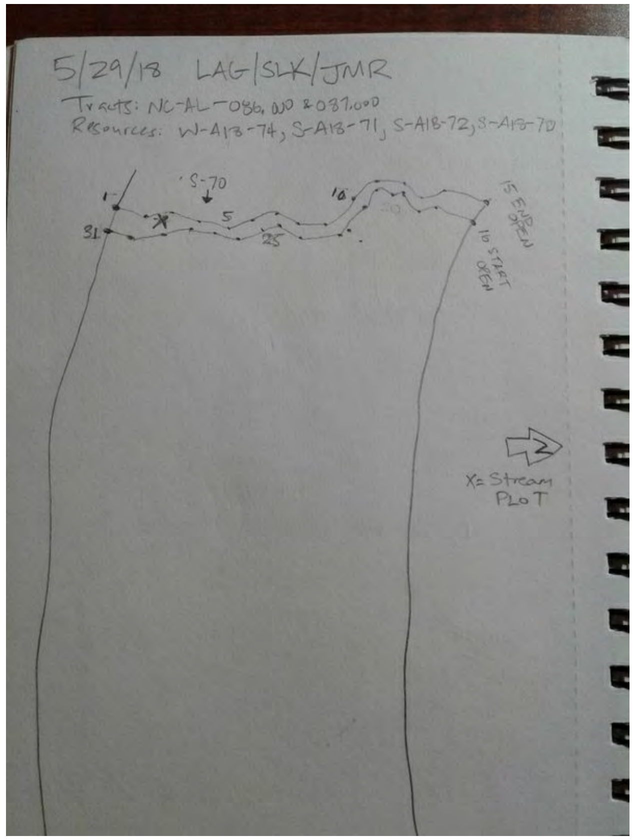
upstream west

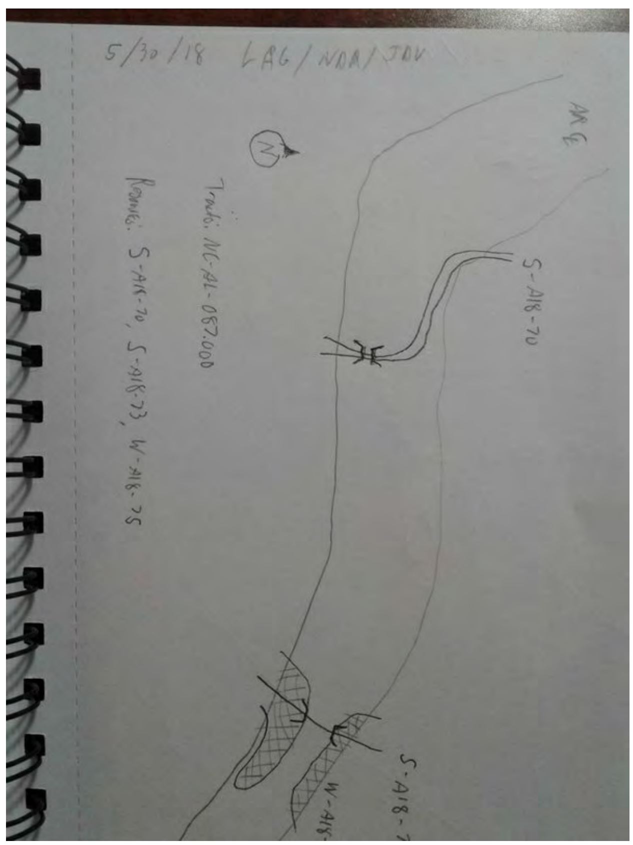
downstream east

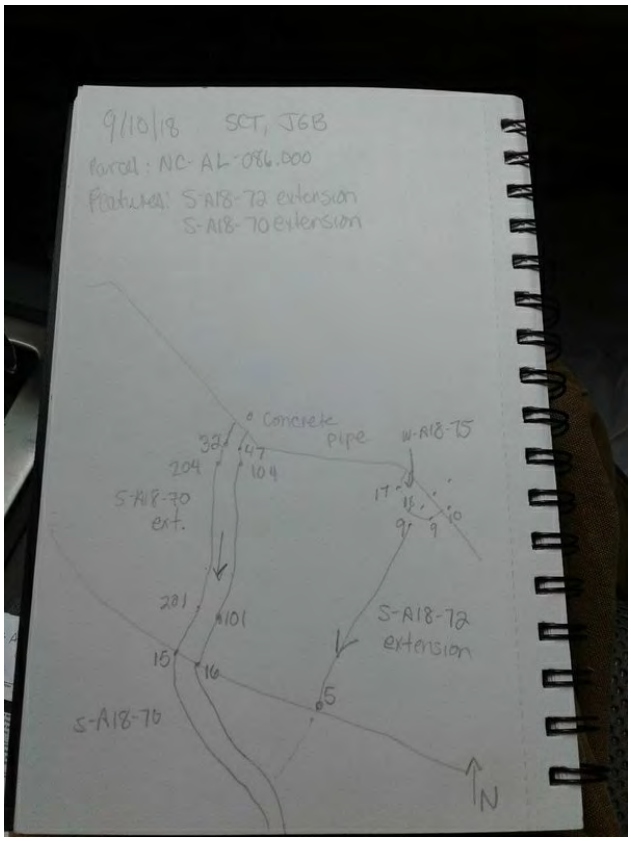
across stream north

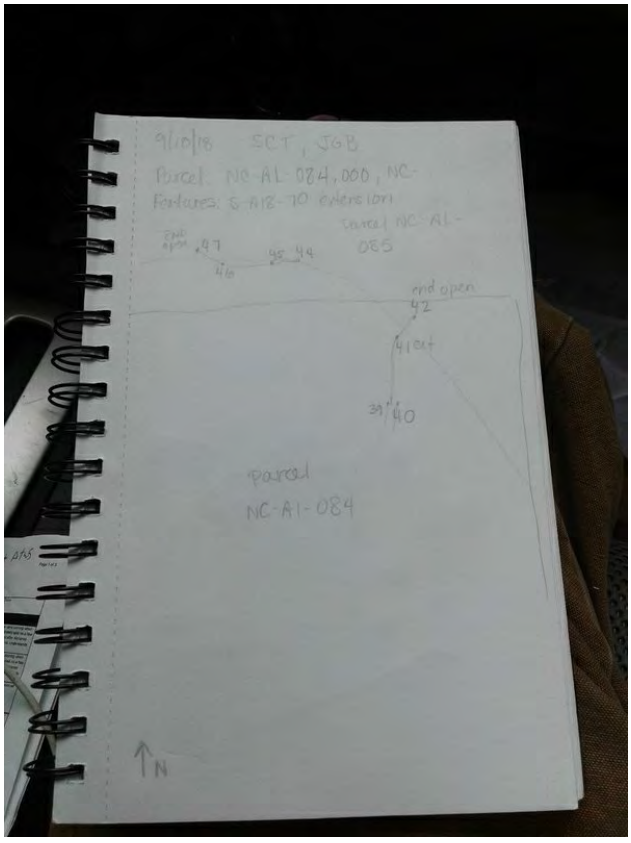
across stream south

Sketch of Stream


5/29/18 LAG/SLK/JMR
Tracts: NC-AL-086.000 & 087.000
Resources: W-A18-74, S-A18-71, S-A18-72, S-A18-70
S-70
1
31
5
10
25
15 END OPEN
10 START OPEN
X= Stream PLOT


5/30/18 LAG/NDA/JDV
Tracts: NC-AL-087.000
Resources: S-A18-70, S-A18-73, W-A18-75
S-A18-70





Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-71

Created	2018-06-22 17:22:10 UTC by Laura Giese
Updated	2018-07-11 15:15:24 UTC by Susie Gifford (SBG)
Location	36.1497514, -79.4295363
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/22
Date2	180622

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	71
Resource ID	S-A18-71
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	24.5
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	NW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Sand, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Sand, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Moderate
Particle size of stream substrate	Weak
Active or relict floodplain	Weak
Depositional bars or benches	Weak
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	13.5

Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	6
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SE

Downstream Stream Photo	
Downstream photo direction	NW
Across Stream Photo 1	
Across stream photo direction 1	SW

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-72

Created	2018-05-29 15:05:39 UTC by Laura Giese
Updated	2018-09-10 18:58:23 UTC by Will Buetow
Location	36.1503142, -79.4300326
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/29
Date2	180529

Resource Crew Info

Field Crew	Joe Roy, Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	72
Resource ID	S-A18-72
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	26.5
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	SW
Channel condition	Marginal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	2
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Weak
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	11

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	8
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	NW

Additional Stream Photos

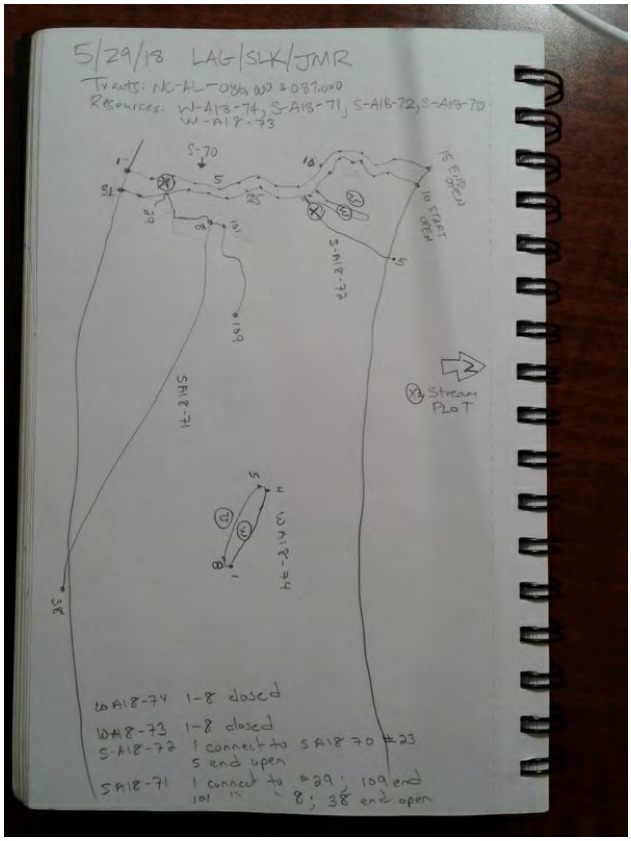
upstream north

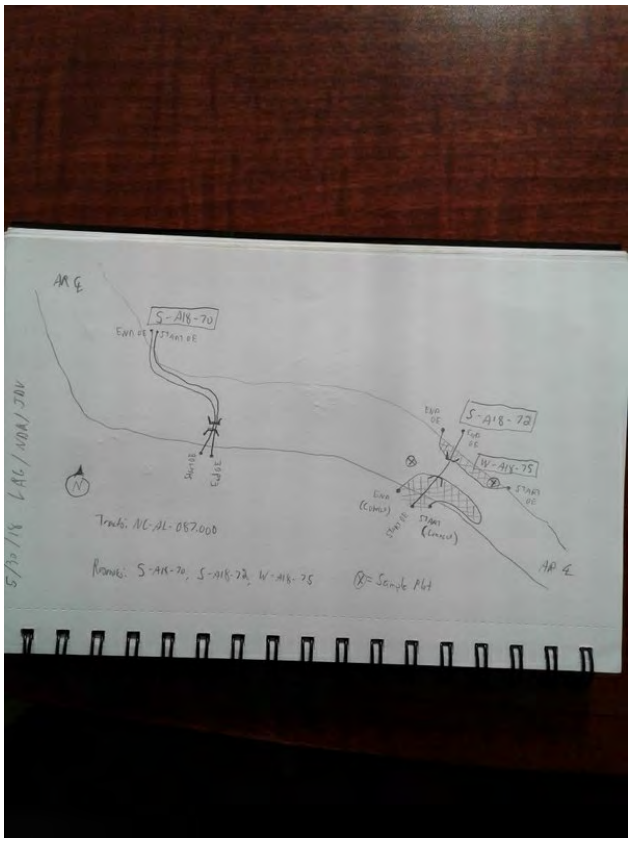
downstream south

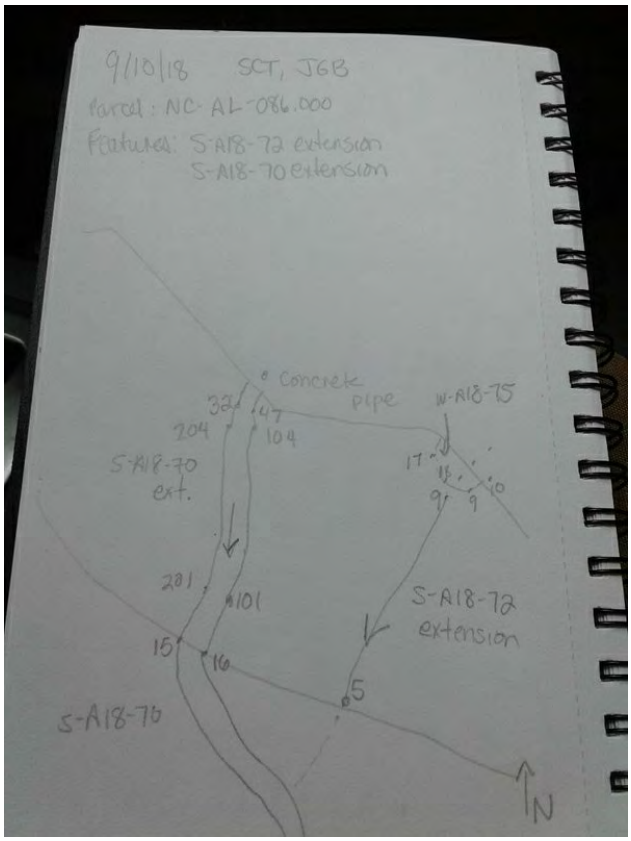
across stream west

across stream east

Sketch of Stream


5/29/18 LAG/SLK/JMR
Tracts: NC-AL-086,000 & 087.000
Resources: W-A18-74, S-A18-71, S-A18-72, S-A18-70
W-A18-73
S-70
S-A18-72
S-A18-71
Stream Plot
W-A18-74 1-8 closed
W-A18-73 1-8 closed
S-A18-72 1 connect to SA18 70 #23
5 end open
SA18-71 1 connect to #29; 109 end
101 " 8; 38 end open


AP 4
S-A18-70
S-A18-72
W-A18-75
Tracts: NC-AL-087.000
Plants: S-A18-70, S-A18-72, W-A18-75
= Sample Plot
AP 4



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-76

Created	2018-05-29 18:04:58 UTC by Laura Giese
Updated	2018-09-20 19:12:14 UTC by Susie Gifford (SBG)
Location	36.1557968, -79.4390768
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/29
Date2	180529

Resource Crew Info

Field Crew	Joe Roy, Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	76
Resource ID	S-A18-76
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	31
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	SE
Channel condition	Suboptimal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	2
Bank to Bank (ft)	3
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Moderate
Left Bank Substrate	Sand, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	1.1
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.1

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Weak
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	16

Stream Hydrology

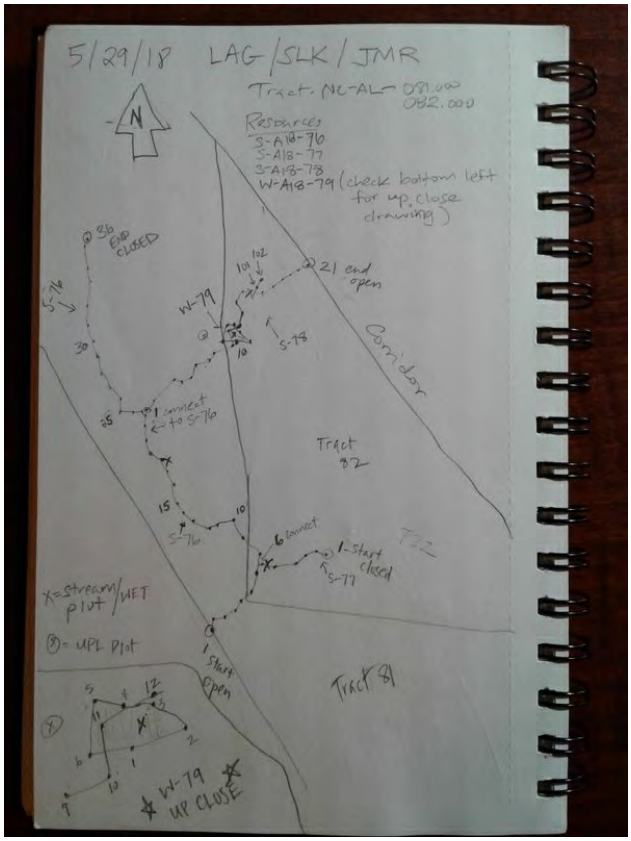
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8.5

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6.5
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NW

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	E

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-77

Created	2018-05-29 16:29:47 EDT by Laura Giese
Updated	2018-06-06 11:03:03 EDT by Sam Edmonds
Location	36.1557883, -79.4389359
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/29
Date2	180529

Resource Crew Info

Field Crew	Joe Roy, Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	77
Resource ID	S-A18-77
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	14
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SW
Channel condition	Marginal
In stream habitat	Poor

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	1.1
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.1

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	1.1
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.1

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	6.5

Stream Hydrology

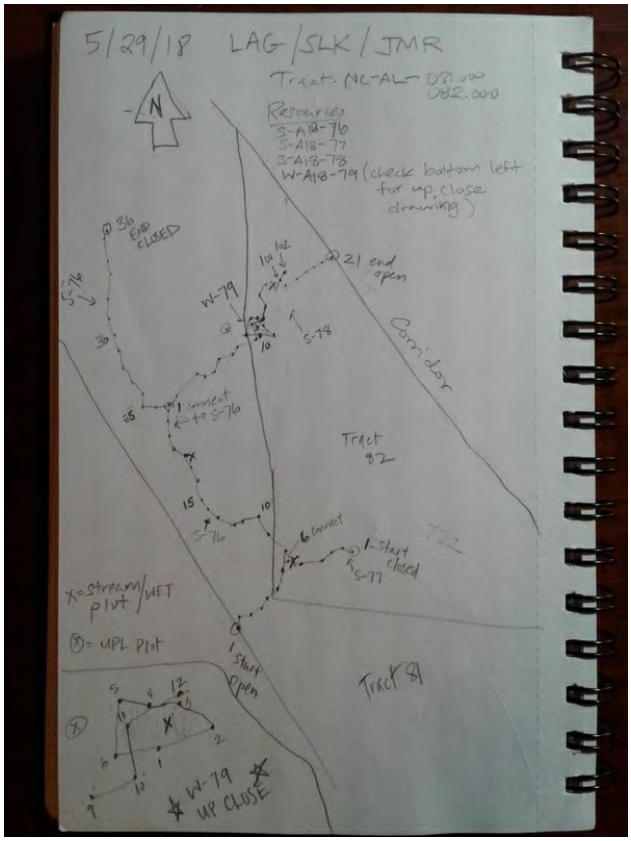
Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Strong
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	No
Stream Hydrology Total	1.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	S

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-78

Created	2018-05-29 14:28:00 EDT by Laura Giese
Updated	2018-06-06 11:04:30 EDT by Sam Edmonds
Location	36.1562545, -79.4393374
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/29
Date2	180529

Resource Crew Info

Field Crew	Joe Roy, Laura Giese, Simon King
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	78
Resource ID	S-A18-78
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	27
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	SW
Channel condition	Optimal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	1.1
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.1

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	1.1
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.1

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Moderate
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Moderate
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	12.5

Stream Hydrology

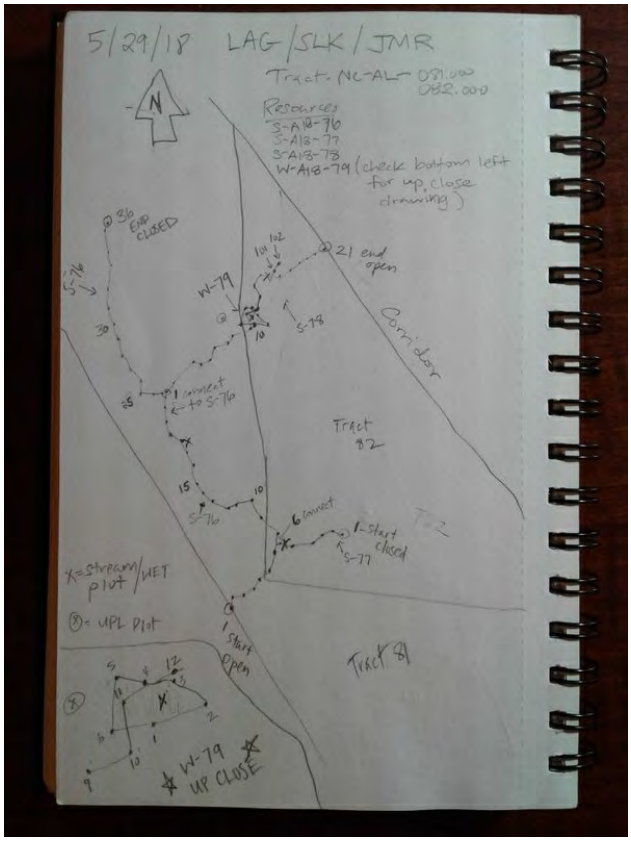
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6.5
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	SE

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

WB-A18-82

Created	2018-05-30 12:01:04 EDT by Laura Giese
Updated	2018-06-06 11:05:42 EDT by Sam Edmonds
Location	36.1493158, -79.4263384
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/30
Date2	180530

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandenberg, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	82
Resource ID	WB-A18-82
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-82
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Pond
Calculated Stream Score	1.5
Calculated Stream Type	Ephemeral

Stream Conditions

Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	8
Average Water Width (ft)	8
Bank to Bank (ft)	8
Bankfull Width (ft)	8
Probed Stream Depth	6 to 12 inches

Left Bank

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Stream Geomorphology Total	0

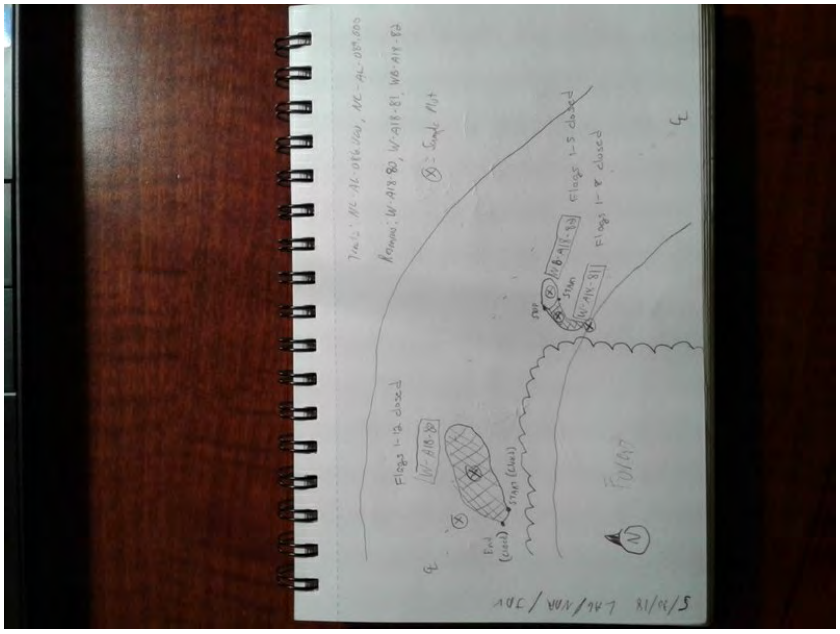
Stream Hydrology

Stream Hydrology Total	0

Stream Biology

Amphibians	Strong
Stream Biology Total	1.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Manmade excavated pond
Stream Overview Report Photos	

Upstream Stream Photo	
Upstream photo direction	E
Downstream Stream Photo	
Downstream photo direction	W

Across Stream Photo 1	
Across stream photo direction 1	S
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-84

Created	2018-05-31 13:33:31 UTC by Laura Giese
Updated	2018-09-20 19:13:12 UTC by Susie Gifford (SBG)
Location	36.2298569, -79.5273281
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/31
Date2	180531

Resource Crew Info

Field Crew	Laura Giese, Nate Renaudin, Jeff Vandeveer
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	84
Resource ID	S-A18-84
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	36
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	4
Average Water Width (ft)	3
Bank to Bank (ft)	5
Bankfull Width (ft)	5
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Weak
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Weak
Grade control	Moderate
Natural valley	Strong
Second or greater order channel	No
Stream Geomorphology Total	15.5

Stream Hydrology

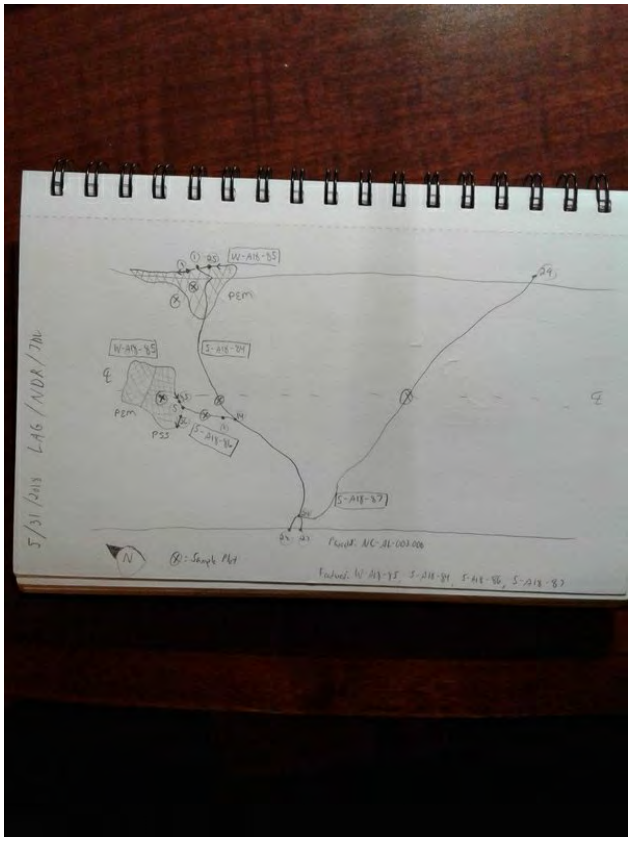
Presence of baseflow	Strong
Iron oxidizing bacteria	Moderate
Leaf litter	Absent
Sediment on plants or debris	Weak
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	11

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Moderate
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	9.5
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	S

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-86

Created	2018-05-31 09:46:38 EDT by Laura Giese
Updated	2018-06-07 08:49:21 EDT by Sam Edmonds
Location	36.2298592, -79.5273498
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/31
Date2	180531

Resource Crew Info

Field Crew	Laura Giese, Nate Renaudin, Jeff Vandeveer
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	86
Resource ID	S-A18-86
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	22.25
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Absent
Second or greater order channel	No
Stream Geomorphology Total	6

Stream Hydrology

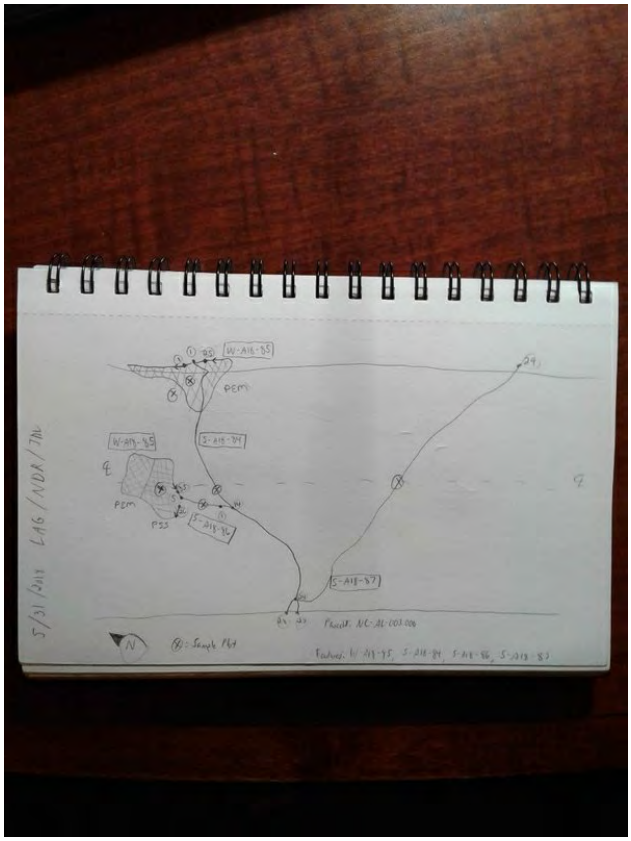
Presence of baseflow	Strong
Iron oxidizing bacteria	Moderate
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	9.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	6.75
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	W

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-87

Created	2018-05-31 10:09:43 EDT by Laura Giese
Updated	2018-06-07 08:49:35 EDT by Sam Edmonds
Location	36.2291632, -79.526847
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/31
Date2	180531

Resource Crew Info

Field Crew	Laura Giese, Nate Renaudin, Jeff Vandeveer
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	87
Resource ID	S-A18-87
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	33
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	NW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	5
Average Water Width (ft)	4
Bank to Bank (ft)	5
Bankfull Width (ft)	5
Probed Stream Depth	6 to 12 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Weak
Depositional bars or benches	Weak
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	15

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

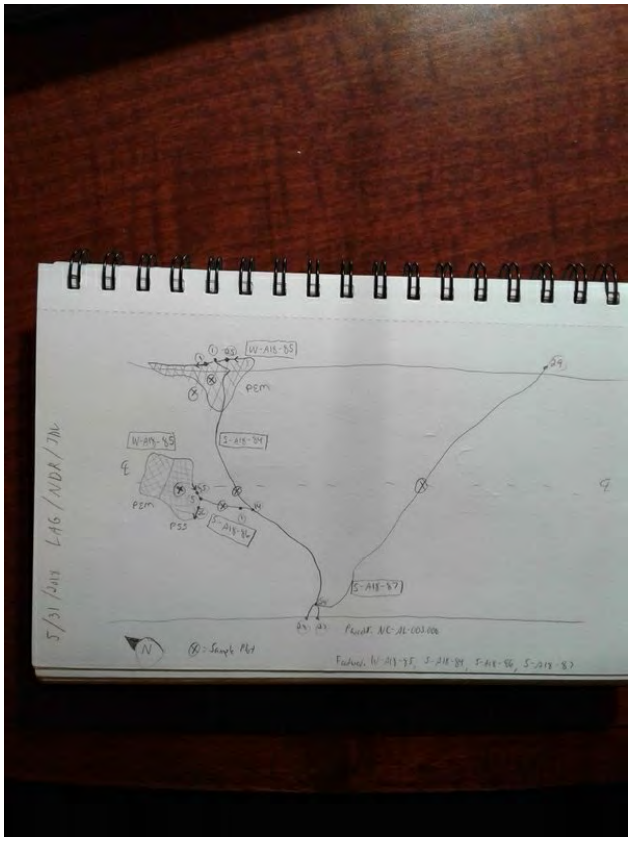
Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Strong
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	10
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SE

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	SW

Additional Stream Photos

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

WB-A18-88

Created	2018-05-31 10:55:01 EDT by Laura Giese
Updated	2018-06-06 11:31:58 EDT by Sam Edmonds
Location	36.2262207, -79.5275123
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/31
Date2	180531

Resource Crew Info

Field Crew	Laura Giese, Nate Renaudin, Jeff Vandeveer
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	88
Resource ID	WB-A18-88
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-88
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Pond
Calculated Stream Score	0
Calculated Stream Type	Undetermined

Stream Conditions

Direction of Flow	W

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	60
Average Water Width (ft)	60
Bank to Bank (ft)	60
Bankfull Width (ft)	60
Probed Stream Depth	> 36 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Stream Geomorphology Total	0

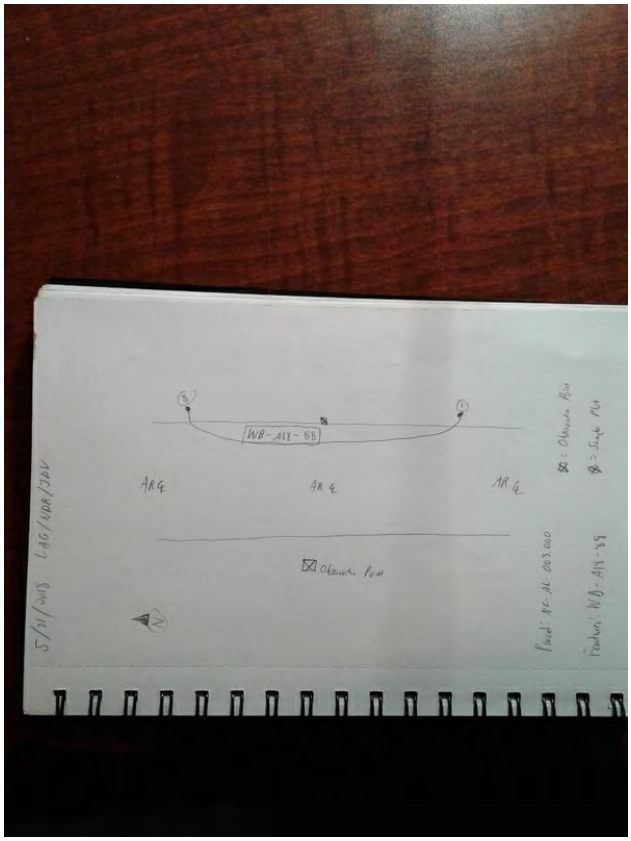
Stream Hydrology

Stream Hydrology Total	0

Stream Biology

Stream Biology Total	0
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo	
Upstream photo direction	SE
Downstream Stream Photo	
Downstream photo direction	W

Across Stream Photo 1	
Across stream photo direction 1	S
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-89

Created	2018-05-31 12:04:54 EDT by Laura Giese
Updated	2018-06-07 08:49:55 EDT by Sam Edmonds
Location	36.2257192, -79.5252354
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/31
Date2	180531

Resource Crew Info

Field Crew	Laura Giese, Nate Renaudin, Jeff Vandeveer
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	89
Resource ID	S-A18-89
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	19.5
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Low
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	8.5

Stream Hydrology

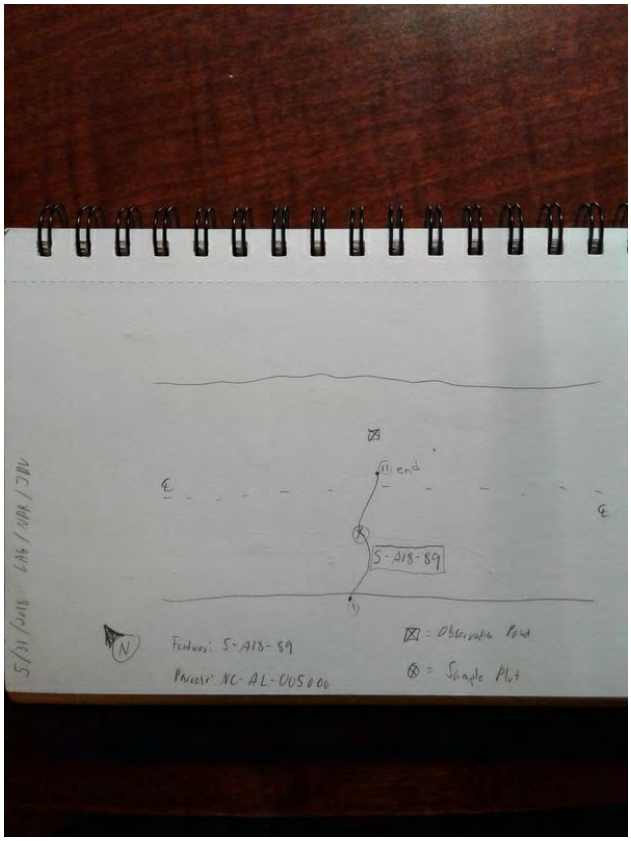
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SE

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	N

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-90

Created	2018-05-31 14:07:58 EDT by Laura Giese
Updated	2018-06-12 11:50:19 EDT by Sam Edmonds
Location	36.2993674, -79.5833804
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/31
Date2	180531

Resource Crew Info

Field Crew	Laura Giese, Nate Renaudin, Jeff Vandeveer
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	90
Resource ID	S-A18-90
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	31
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	NE

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	2
Bank to Bank (ft)	3
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	5
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Moderate
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	16.5

Stream Hydrology

Presence of baseflow	Moderate
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Weak
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7

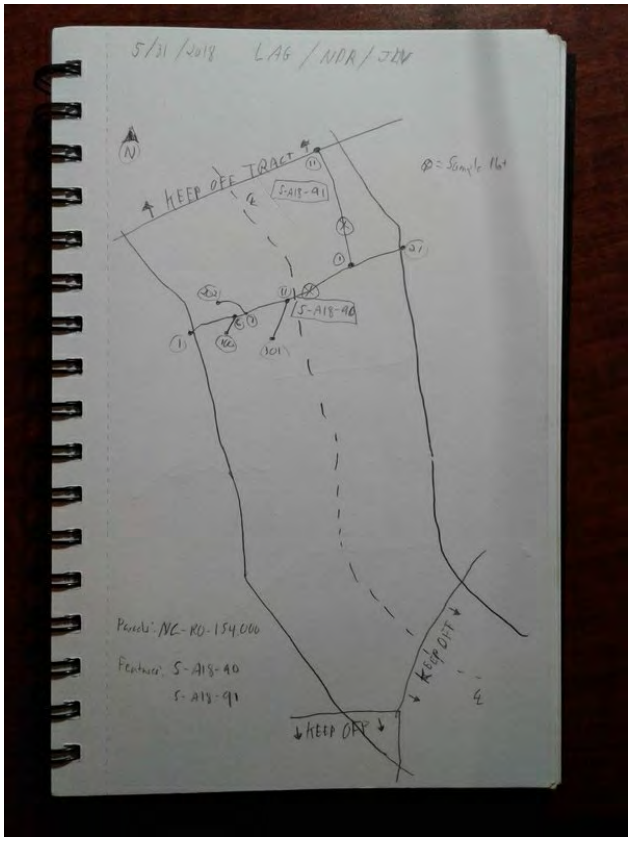
Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	7.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Flags 1-6 ephemeral, remainder is intermittent. Seepage flow
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SW

Downstream Stream Photo	
Downstream photo direction	NE
Across Stream Photo 1	
Across stream photo direction 1	N

Additional Stream Photos

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-91

Created	2018-05-31 18:33:30 UTC by Laura Giese
Updated	2018-08-25 21:14:55 UTC by Will Buetow
Location	36.2996594, -79.5828057
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/31
Date2	180531

Resource Crew Info

Field Crew	Laura Giese, Nate Renaudin, Jeff Vandeveer
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	91
Resource ID	S-A18-91
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	16.5
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SE

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Moderate
Natural valley	Strong
Second or greater order channel	No
Stream Geomorphology Total	10.5

Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Strong
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	No
Stream Hydrology Total	0

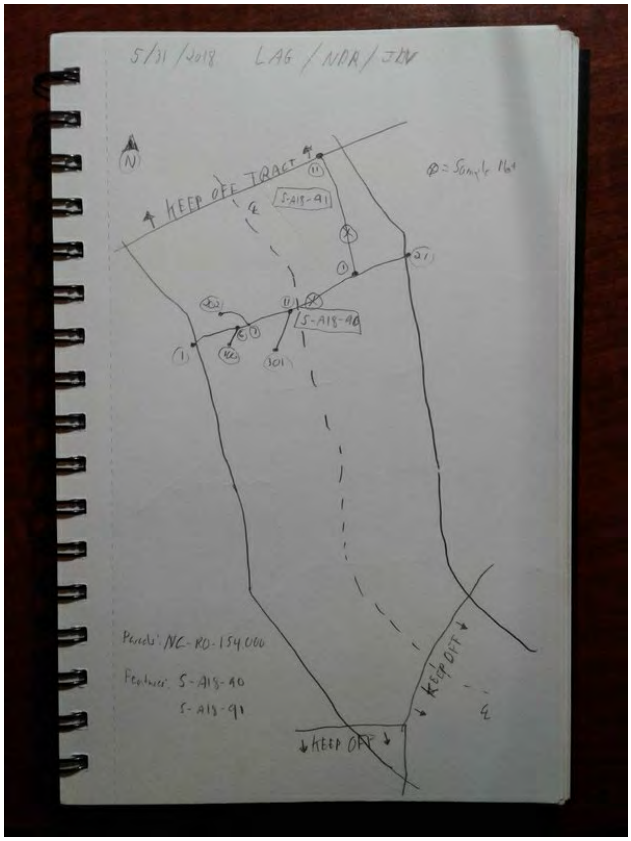
Stream Biology

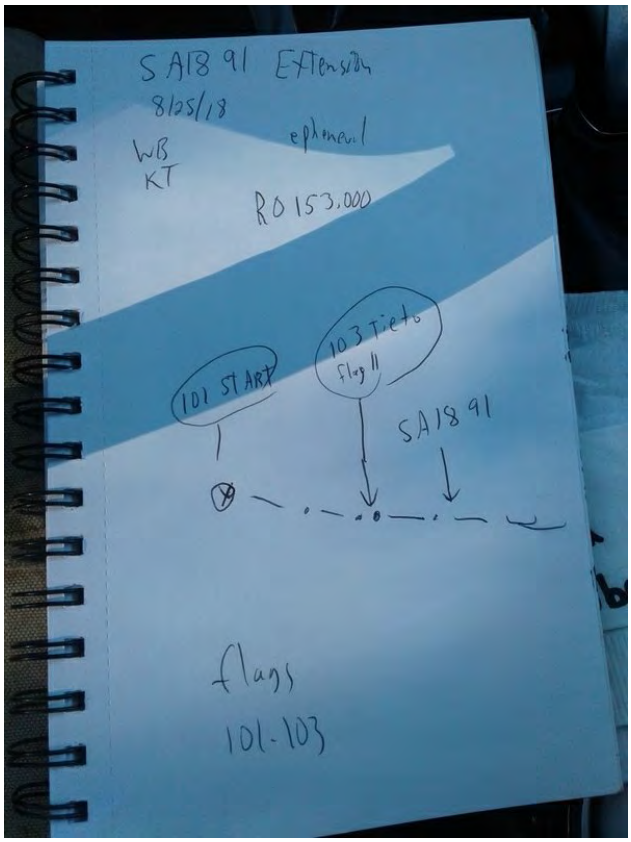
Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NW

Downstream Stream Photo	
Downstream photo direction	SE
Across Stream Photo 1	
Across stream photo direction 1	S

Additional Stream Photos

Sketch of Stream





Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-92

Created	2018-06-01 13:37:51 UTC by Laura Giese
Updated	2018-09-06 15:32:22 UTC by Joseph Roy
Location	36.2949997, -79.5775432
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/01
Date2	180601

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	92
Resource ID	S-A18-92
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	16.5
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	N

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Weak
Natural valley	Strong
Second or greater order channel	No
Stream Geomorphology Total	9

Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	No
Stream Hydrology Total	1.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Extension flags 1 and 2
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SE

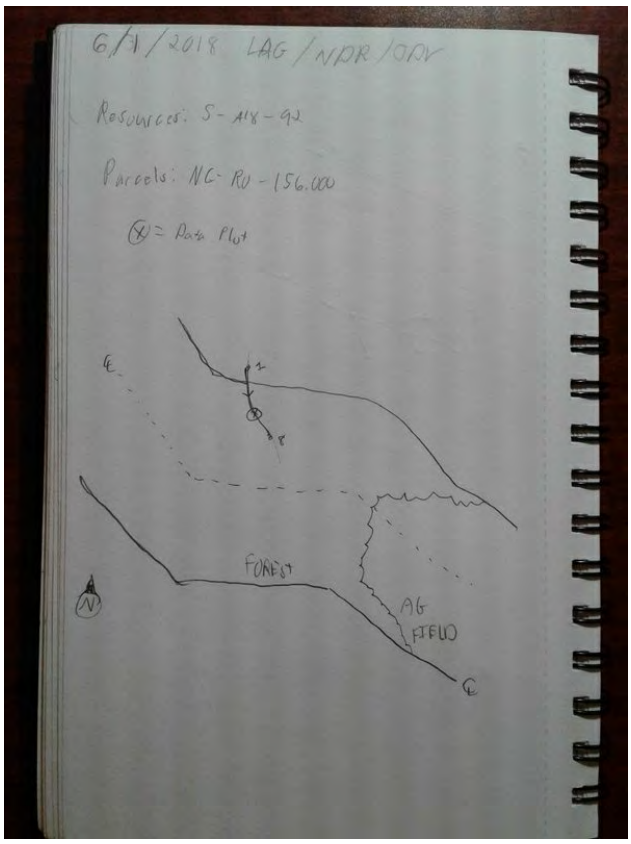
Downstream Stream Photo	
Downstream photo direction	N
Across Stream Photo 1	
Across stream photo direction 1	E
Additional Stream Photos	

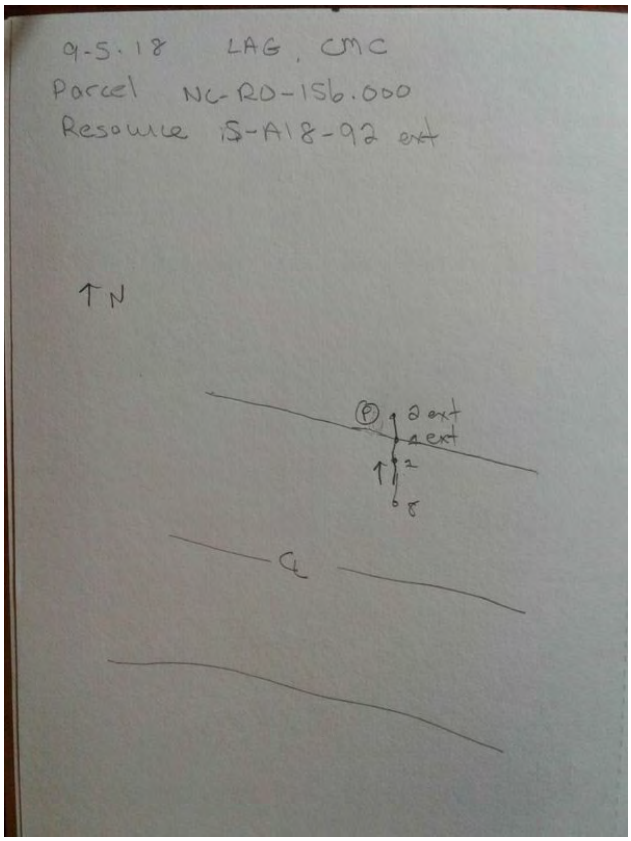
upstream-South

dnstream, North

Across, West

Sketch of Stream





Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-93

Created	2018-06-01 11:28:12 EDT by Laura Giese
Updated	2018-06-07 08:51:03 EDT by Sam Edmonds
Location	36.427655, -79.6600729
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/01
Date2	180601

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	93
Resource ID	S-A18-93
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	14
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	N

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Low
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	6.5

Stream Hydrology

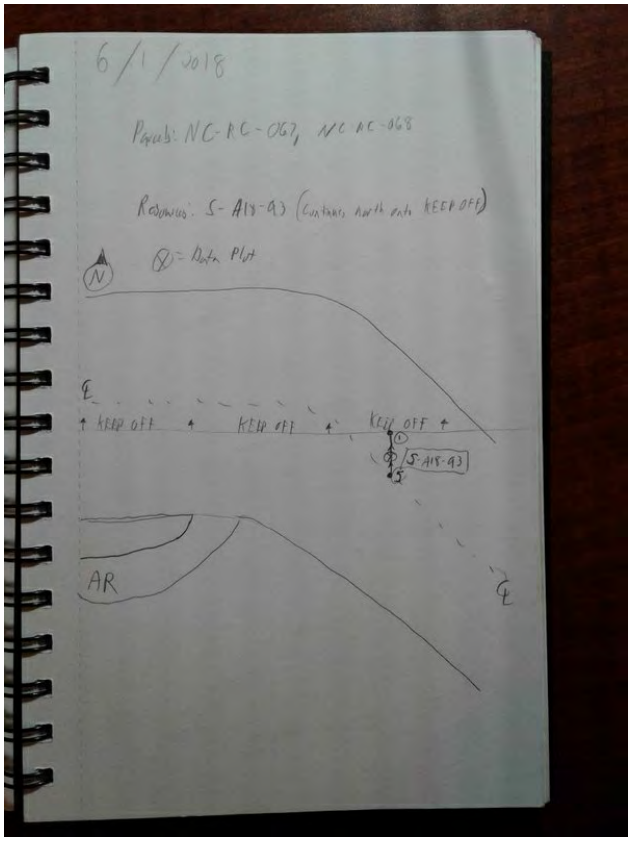
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	No
Stream Hydrology Total	1.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	S

Downstream Stream Photo	
Downstream photo direction	N
Across Stream Photo 1	
Across stream photo direction 1	E

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-94

Created	2018-06-01 11:48:14 EDT by Laura Giese
Updated	2018-06-07 08:51:37 EDT by Sam Edmonds
Location	36.4264716, -79.6597033
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/01
Date2	180601

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	94
Resource ID	S-A18-94
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	27
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SE

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Moderate
Natural valley	Strong
Second or greater order channel	No
Stream Geomorphology Total	14.5

Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	5.5

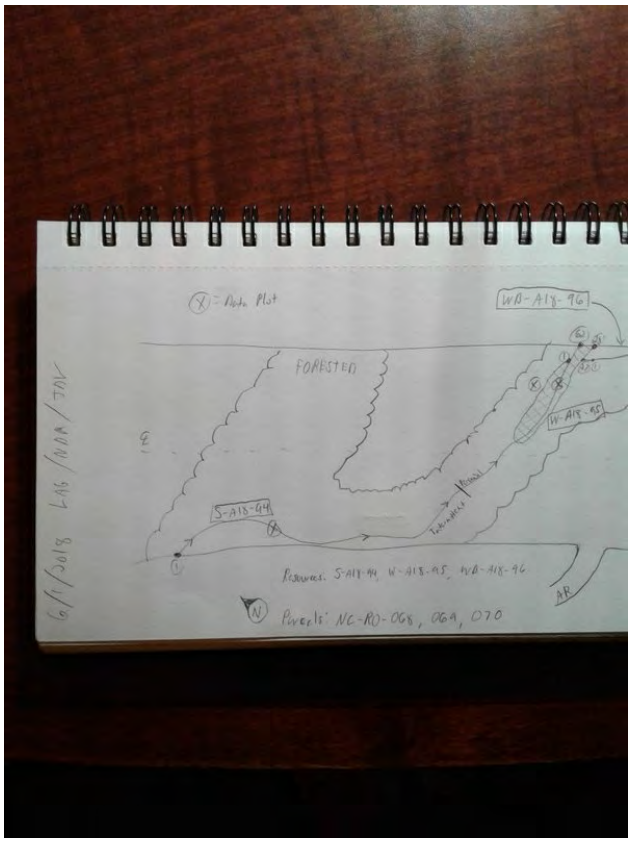
Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	7
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Switch to perennial at flag 39
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NW

Downstream Stream Photo	
Downstream photo direction	SE
Across Stream Photo 1	
Across stream photo direction 1	SW

Additional Stream Photos

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

WB-A18-96

Created	2018-06-01 18:00:35 UTC by Laura Giese
Updated	2018-09-20 19:19:29 UTC by Susie Gifford (SBG)
Location	36.4247802, -79.6570974
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/01
Date2	180601

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	96
Resource ID	WB-A18-96
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-96
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Pond
Calculated Stream Score	0
Calculated Stream Type	Undetermined

Stream Conditions

Direction of Flow	E

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	260
Average Water Width (ft)	260
Bank to Bank (ft)	260
Bankfull Width (ft)	260
Probed Stream Depth	> 36 inches

Left Bank

Left Bank Height (feet)	3

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Stream Geomorphology Total	0

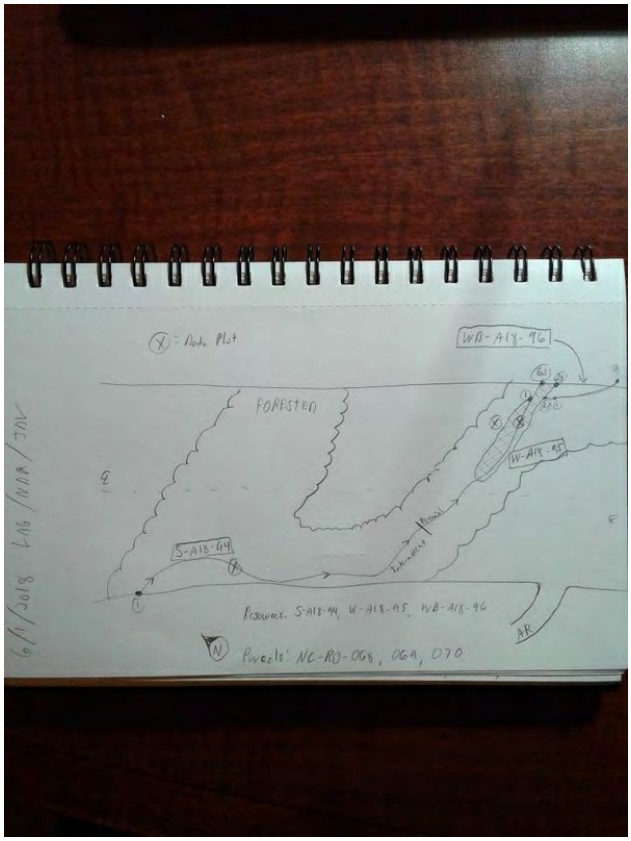
Stream Hydrology

Stream Hydrology Total	0

Stream Biology

Stream Biology Total	0
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo	
Upstream photo direction	N
Downstream Stream Photo	
Downstream photo direction	S

Across Stream Photo 1	
Across stream photo direction 1	E
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-97

Created	2018-06-02 08:54:02 EDT by Laura Giese
Updated	2018-06-07 08:52:04 EDT by Sam Edmonds
Location	36.4235823, -79.6558393
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/02
Date2	180602

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	97
Resource ID	S-A18-97
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	36.5
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	NE

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	2
Bank to Bank (ft)	5
Bankfull Width (ft)	5
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	5
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Moderate
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	19.5

Stream Hydrology

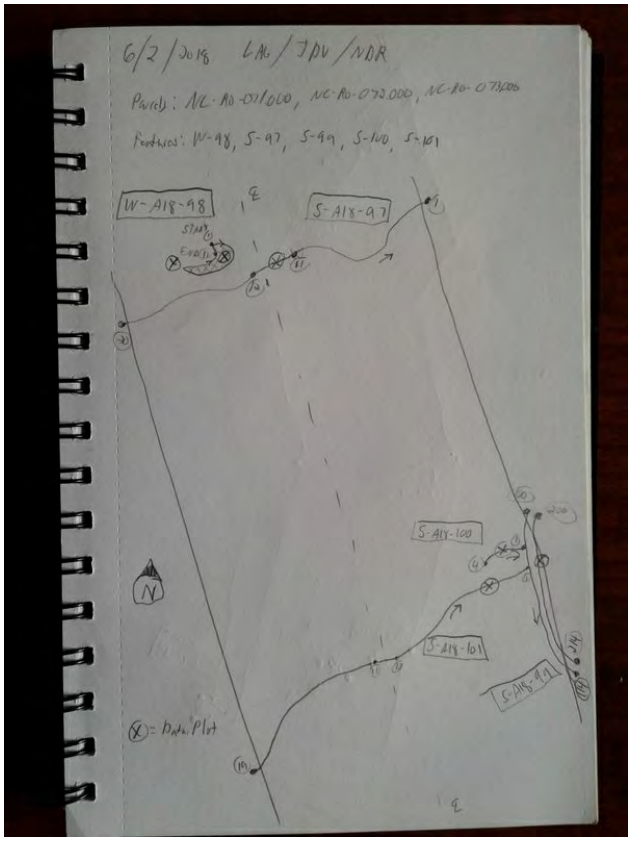
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Moderate
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	9
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SW

Downstream Stream Photo	
Downstream photo direction	NE
Across Stream Photo 1	
Across stream photo direction 1	SE

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-99

Created	2018-06-02 14:10:47 UTC by Laura Giese
Updated	2018-09-20 19:13:30 UTC by Susie Gifford (SBG)
Location	36.4222586, -79.6548795
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/02
Date2	180602

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	99
Resource ID	S-A18-99
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	35
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	SE

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	9
Average Water Width (ft)	6
Bank to Bank (ft)	11
Bankfull Width (ft)	11
Probed Stream Depth	6 to 12 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	5
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Moderate
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	16.5

Stream Hydrology

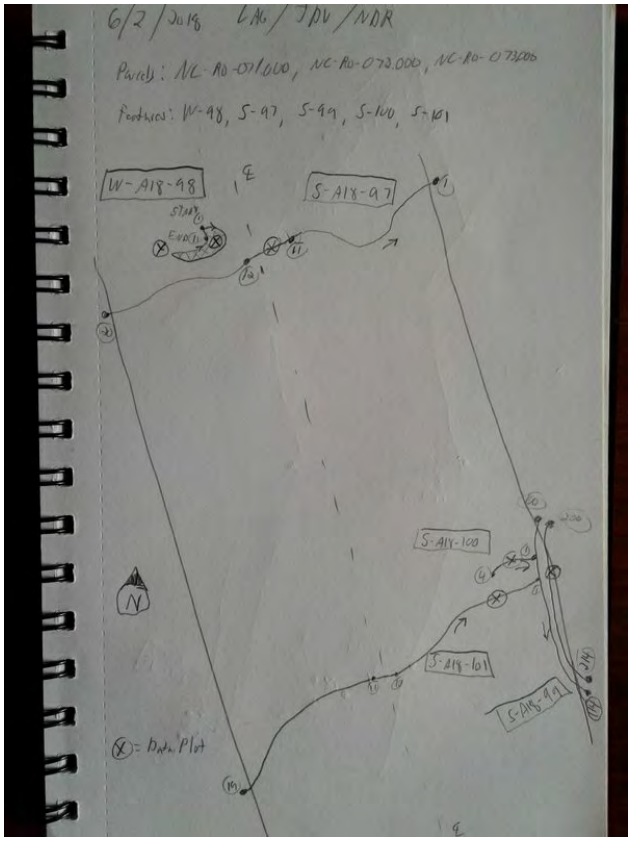
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Strong
Aquatic mullusks	Absent
Fish	Weak
Crayfish	Weak
Amphibians	Weak
Algae	Absent
Stream Biology Total	10.5
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	SW

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-100

Created	2018-06-02 10:42:35 EDT by Nathan Renaudin
Updated	2018-06-07 08:53:05 EDT by Sam Edmonds
Location	36.4222846, -79.6548164
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/02
Date2	180602

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	100
Resource ID	S-A18-100
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	15.5
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	E

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Weak
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	8

Stream Hydrology

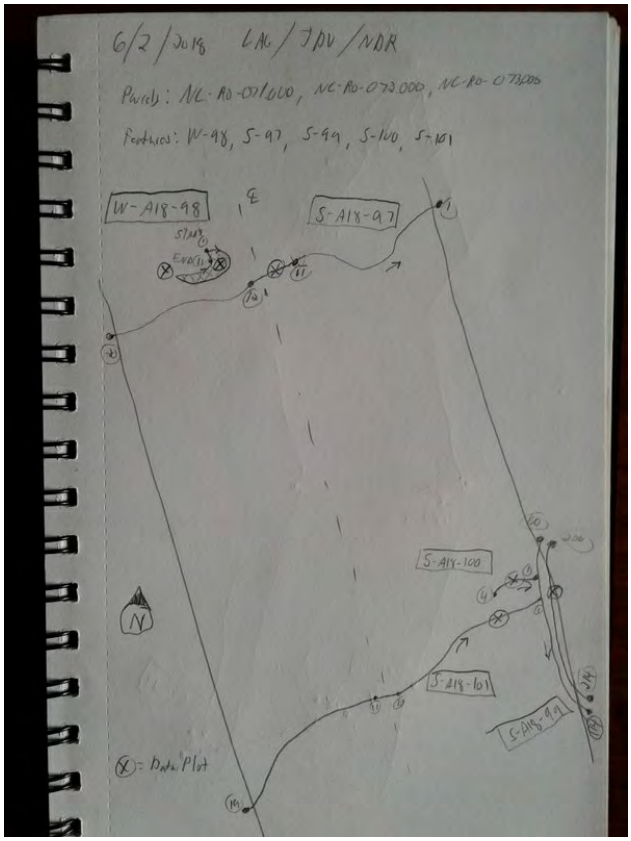
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	No
Stream Hydrology Total	1.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	W

Downstream Stream Photo	
Downstream photo direction	E
Across Stream Photo 1	
Across stream photo direction 1	N

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-101

Created	2018-06-02 10:50:19 EDT by Nathan Renaudin
Updated	2018-06-07 08:53:20 EDT by Sam Edmonds
Location	36.4222878, -79.6548632
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/02
Date2	180602

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	101
Resource ID	S-A18-101
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	32
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	E

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Weak
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	17

Stream Hydrology

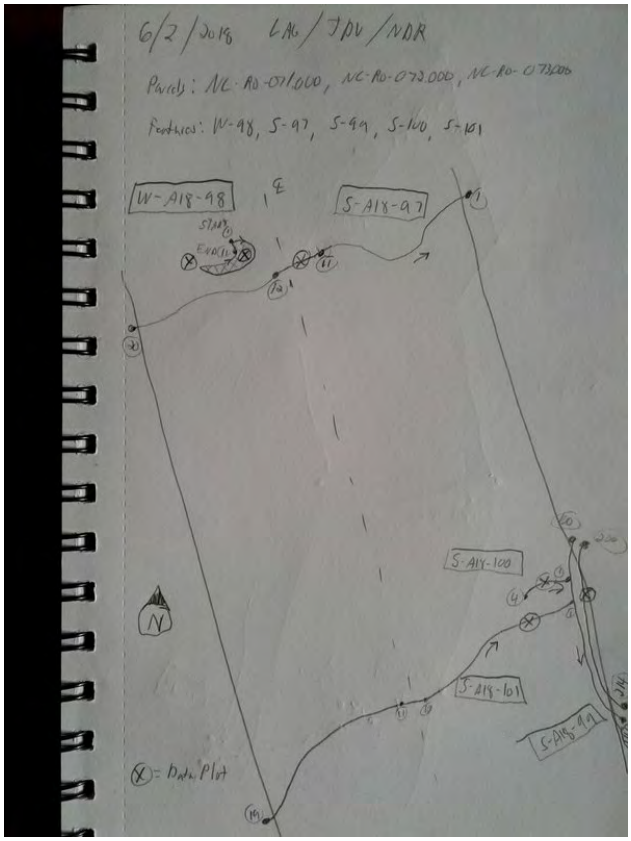
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	7.5
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	W

Downstream Stream Photo	
Downstream photo direction	E
Across Stream Photo 1	
Across stream photo direction 1	S

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-102

Created	2018-06-02 16:57:13 UTC by Laura Giese
Updated	2018-09-20 18:59:01 UTC by Susie Gifford (SBG)
Location	36.3416606, -79.6058149
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/02
Date2	180602

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	102
Resource ID	S-A18-102
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	36
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	NE

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	3
Bank to Bank (ft)	5
Bankfull Width (ft)	5
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Sand, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Weak
Grade control	Moderate
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	18.5

Stream Hydrology

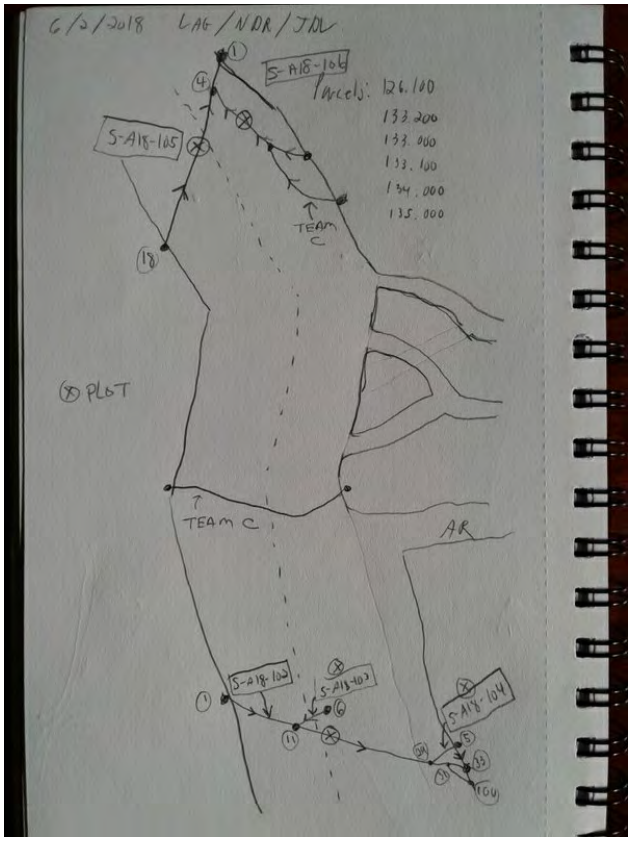
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Moderate
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	9.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Adjacent hillside recently harvested
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SE

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	NE

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-103

Created	2018-06-02 13:11:49 EDT by Laura Giese
Updated	2018-06-07 08:54:06 EDT by Sam Edmonds
Location	36.3413866, -79.6052847
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/02
Date2	180602

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	103
Resource ID	S-A18-103
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	13
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Weak
Natural valley	Absent
Second or greater order channel	No
Stream Geomorphology Total	5.5

Stream Hydrology

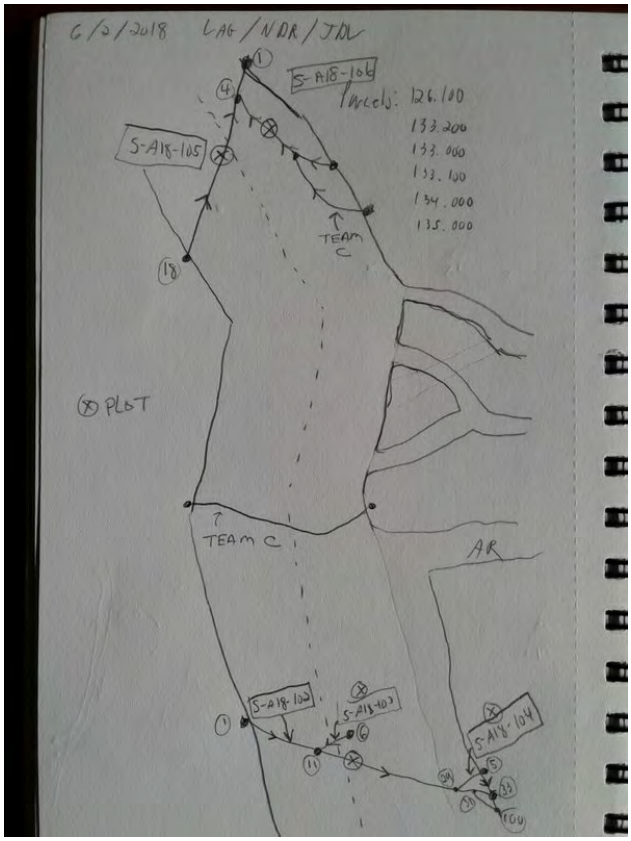
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	No
Stream Hydrology Total	1.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	NW

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-104

Created	2018-06-02 17:50:48 UTC by Laura Giese
Updated	2018-09-20 18:59:40 UTC by Susie Gifford (SBG)
Location	36.3405852, -79.6040811
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/02
Date2	180602

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	104
Resource ID	S-A18-104
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	16
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Weak
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	8

Stream Hydrology

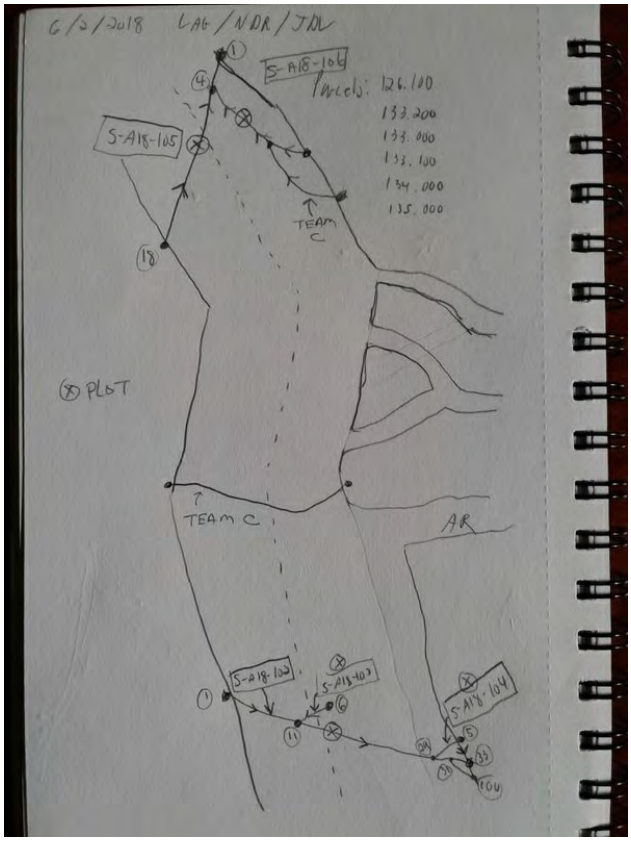
Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	No
Stream Hydrology Total	2

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Adjacent hillside recently harvested
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	N

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-105

Created	2018-06-02 16:06:46 EDT by Laura Giese
Updated	2018-06-26 10:38:35 EDT by Sam Edmonds
Location	36.347102, -79.6063698
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/02
Date2	180602

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	105
Resource ID	S-A18-105
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	43
Calculated Stream Type	Perennial
Wildlife Observed	Fish
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	N
Channel condition	Suboptimal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	1.3
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.3

Stream Measurements

OHWM Width (ft)	7
Average Water Width (ft)	6
Bank to Bank (ft)	12

Bankfull Width (ft)	12
Probed Stream Depth	6 to 12 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	1.1
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.1

Right Bank

Right Bank Height (feet)	5
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	High
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	1.2
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.2

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Strong
Particle size of stream substrate	Strong
Active or relict floodplain	Moderate
Depositional bars or benches	Moderate
Recent alluvial deposits	Weak
Headcuts	Weak
Grade control	Moderate
Natural valley	Strong

Second or greater order channel	Yes
Stream Geomorphology Total	23.5

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Weak
Leaf litter	Absent
Sediment on plants or debris	Weak
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	9.5

Stream Biology

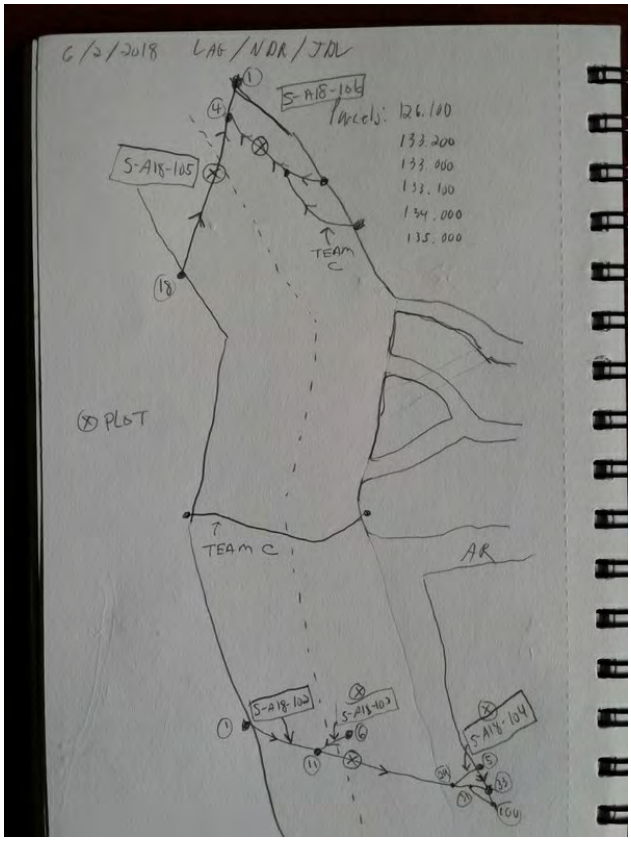
Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Weak
Crayfish	Moderate
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	10
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Top of bank continued by Team C 6-22-2018
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SW

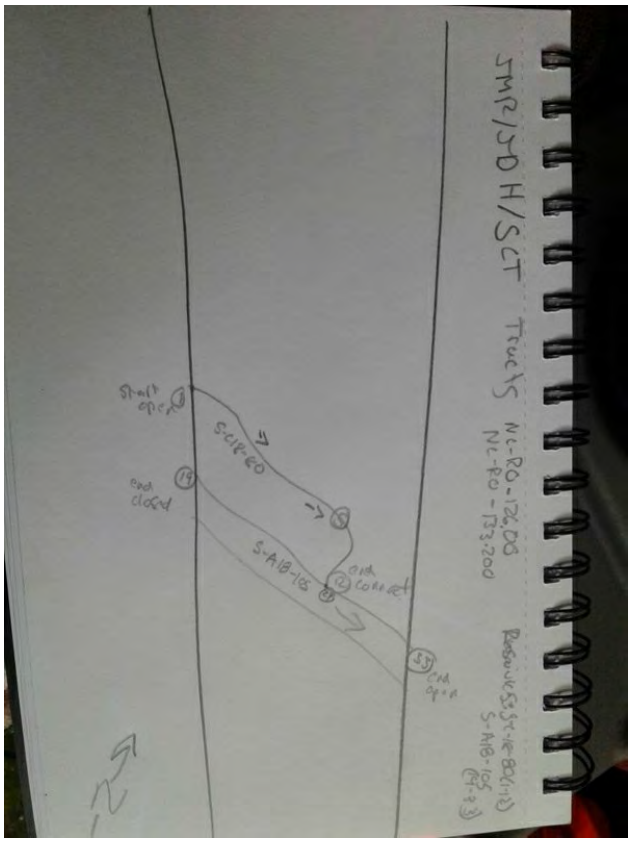
Downstream Stream Photo	
Downstream photo direction	NW
Across Stream Photo 1	
Across stream photo direction 1	W

Across Stream Photo 2	
Across stream photo direction 2	E

Additional Stream Photos

Sketch of Stream





Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-106

Created	2018-06-02 19:49:36 UTC by Laura Giese
Updated	2018-09-19 18:26:53 UTC by Susie Gifford (SBG)
Location	36.3473681, -79.6063949
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/02
Date2	180602

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	106
Resource ID	S-A18-106
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	34
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	NW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	2
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Weak
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	17

Stream Hydrology

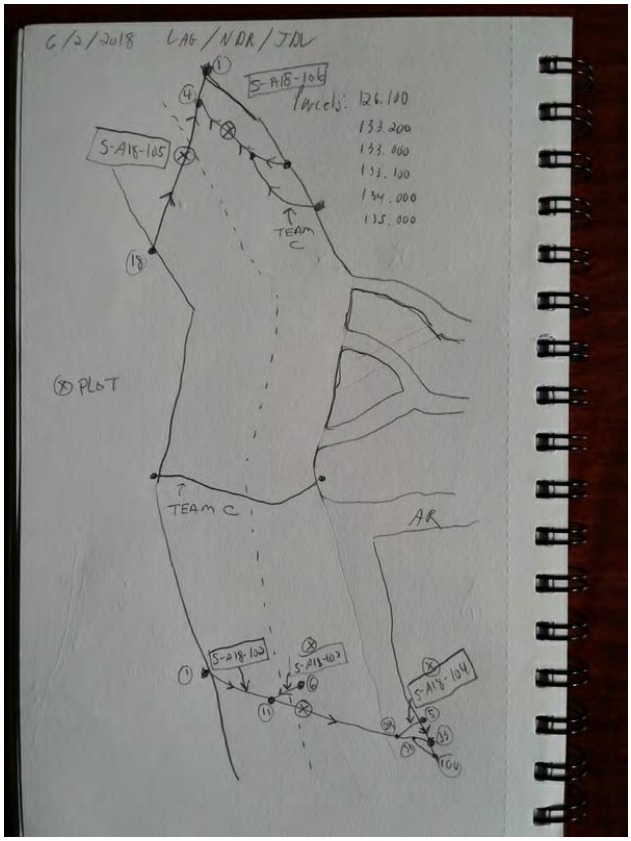
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	8.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Merged with old resource S-C18-26, all data for both old streams included in this form.
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	S

Downstream Stream Photo	
Downstream photo direction	NW
Across Stream Photo 1	
Across stream photo direction 1	E

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-107

Created	2018-06-04 14:33:12 UTC by Laura Giese
Updated	2018-09-20 19:02:47 UTC by Susie Gifford (SBG)
Location	36.0733567, -79.3582088
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/04
Date2	180604

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	107
Resource ID	S-A18-107
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	20
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	NE

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Moderate
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	13

Stream Hydrology

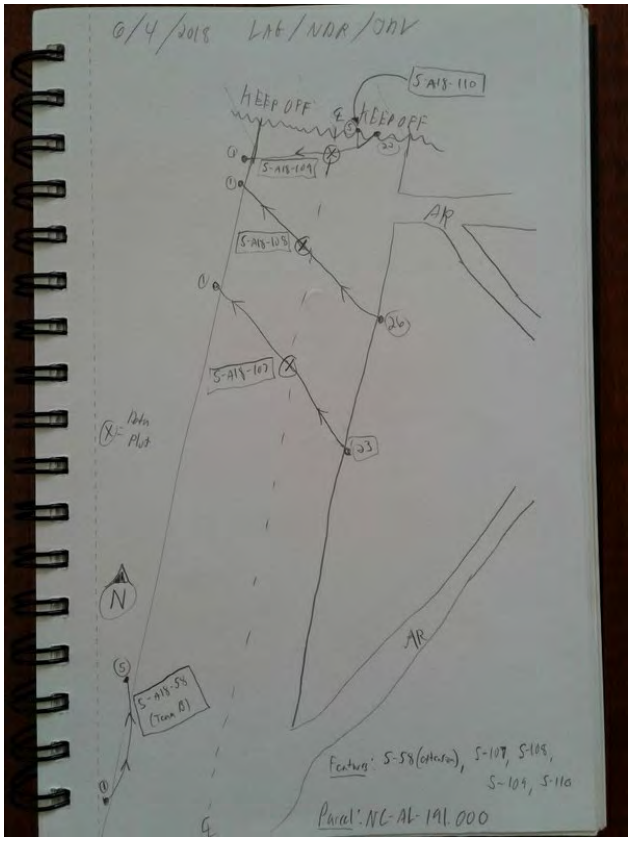
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	No
Stream Hydrology Total	1

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SE

Downstream Stream Photo	
Downstream photo direction	NW
Across Stream Photo 1	
Across stream photo direction 1	E

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-108

Created	2018-06-04 15:10:23 UTC by Laura Giese
Updated	2018-09-20 19:03:21 UTC by Susie Gifford (SBG)
Location	36.0739277, -79.3580225
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/04
Date2	180604

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	108
Resource ID	S-A18-108
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	27.5
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	NE

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	15

Stream Hydrology

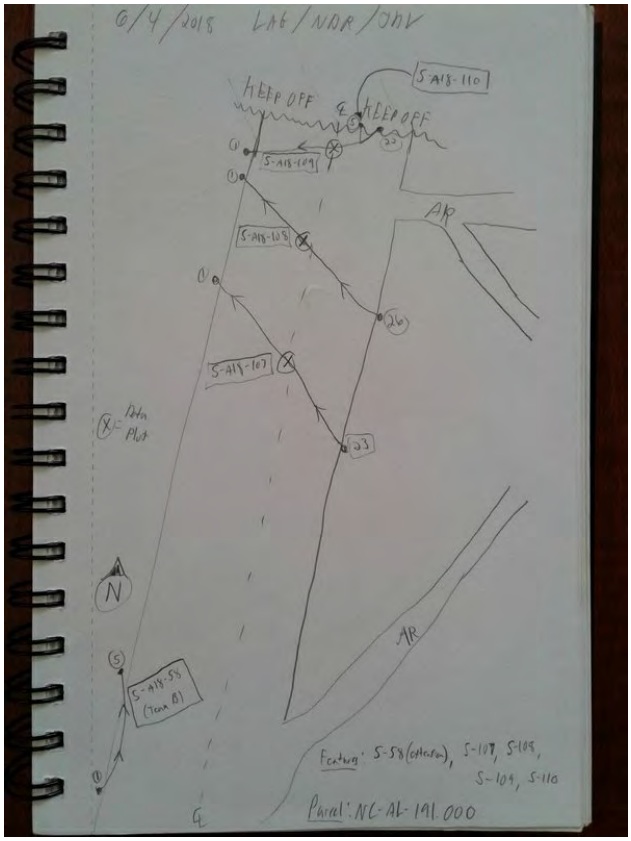
Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	6.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SE

Downstream Stream Photo	
Downstream photo direction	NW
Across Stream Photo 1	
Across stream photo direction 1	E

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-109

Created	2018-06-04 15:34:37 UTC by Laura Giese
Updated	2018-09-20 19:03:35 UTC by Susie Gifford (SBG)
Location	36.074878, -79.3576497
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/04
Date2	180604

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	109
Resource ID	S-A18-109
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	35.5
Calculated Stream Type	Perennial
Wildlife Observed	None
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	SW
Channel condition	Suboptimal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	5
Average Water Width (ft)	3
Bank to Bank (ft)	5

Bankfull Width (ft)	5
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	1.2
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.2

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Low
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	1.2
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.2

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Strong
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Moderate
Recent alluvial deposits	Weak
Headcuts	Weak
Grade control	Moderate
Natural valley	Strong

Second or greater order channel	Yes
Stream Geomorphology Total	20.5

Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	6

Stream Biology

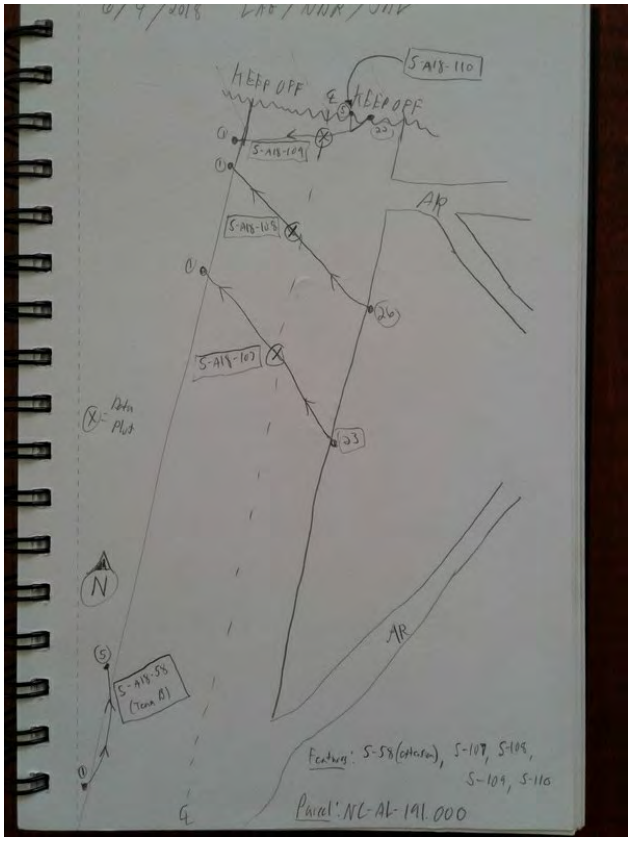
Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Weak
Fish	Absent
Crayfish	Weak
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	9
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SE

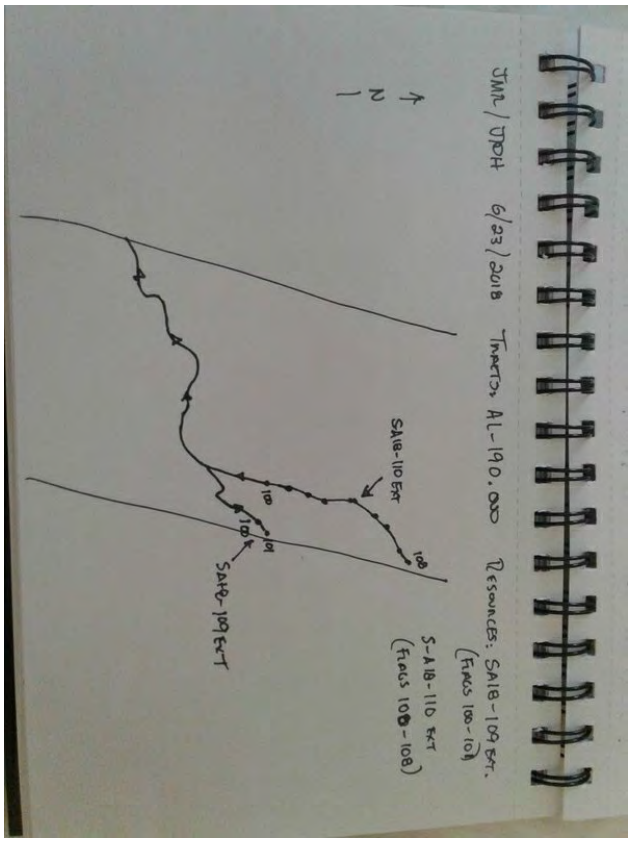
Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	N

Across Stream Photo 2	
Across stream photo direction 2	S

Additional Stream Photos

Sketch of Stream





Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-110

Created	2018-06-04 15:49:48 UTC by Laura Giese
Updated	2018-07-11 15:36:00 UTC by Susie Gifford (SBG)
Location	36.0749864, -79.3572268
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/04
Date2	180604

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	110
Resource ID	S-A18-110
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	23.5
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	11.5

Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Weak
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	6

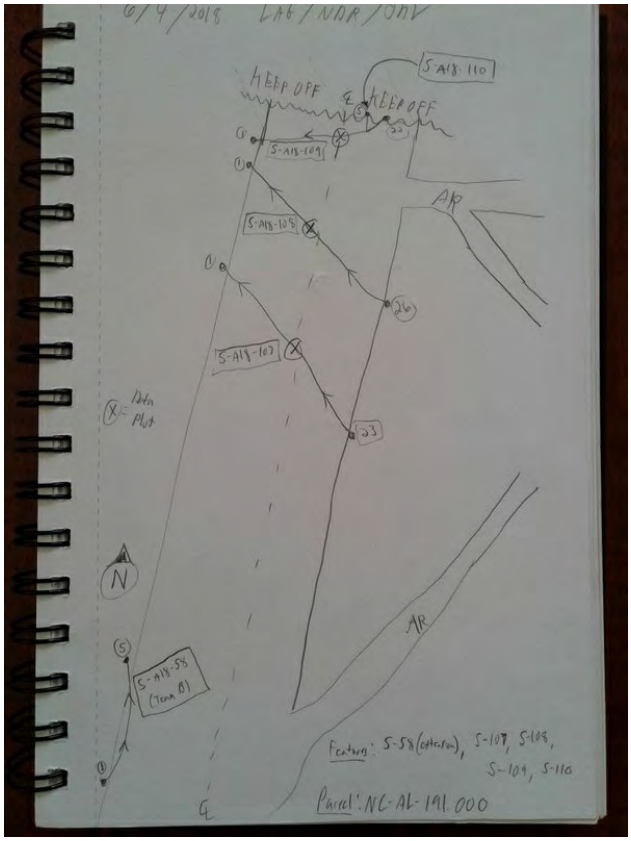
Stream Biology

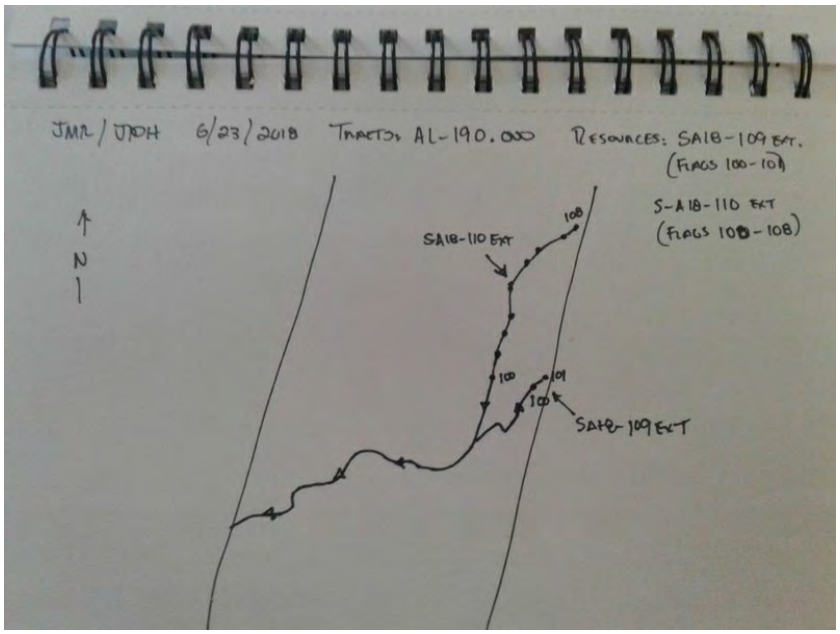
Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	E

Additional Stream Photos

Sketch of Stream





Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-112

Created	2018-06-04 15:35:39 EDT by Laura Giese
Updated	2018-06-07 08:56:38 EDT by Sam Edmonds
Location	36.0889365, -79.3655052
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/04
Date2	180604

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	112
Resource ID	S-A18-112
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	20.5
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	3
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Moderate
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	9.5

Stream Hydrology

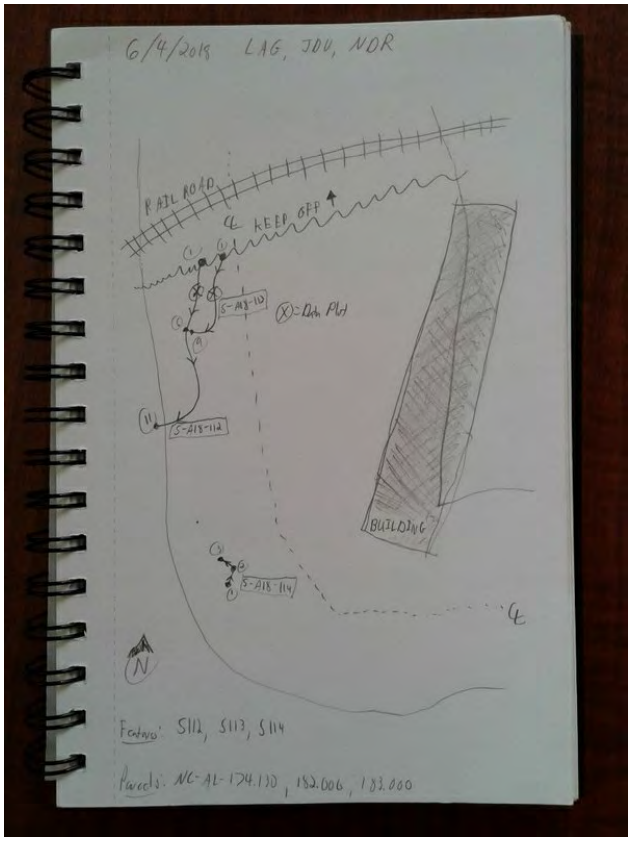
Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Seepage flow
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	NW

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-113

Created	2018-06-04 19:29:16 UTC by Laura Giese
Updated	2018-09-20 19:04:09 UTC by Susie Gifford (SBG)
Location	36.0890422, -79.3655501
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/04
Date2	180604

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	113
Resource ID	S-A18-113
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	28
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	SE

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Moderate
Active or relict floodplain	Weak
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Absent
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	13

Stream Hydrology

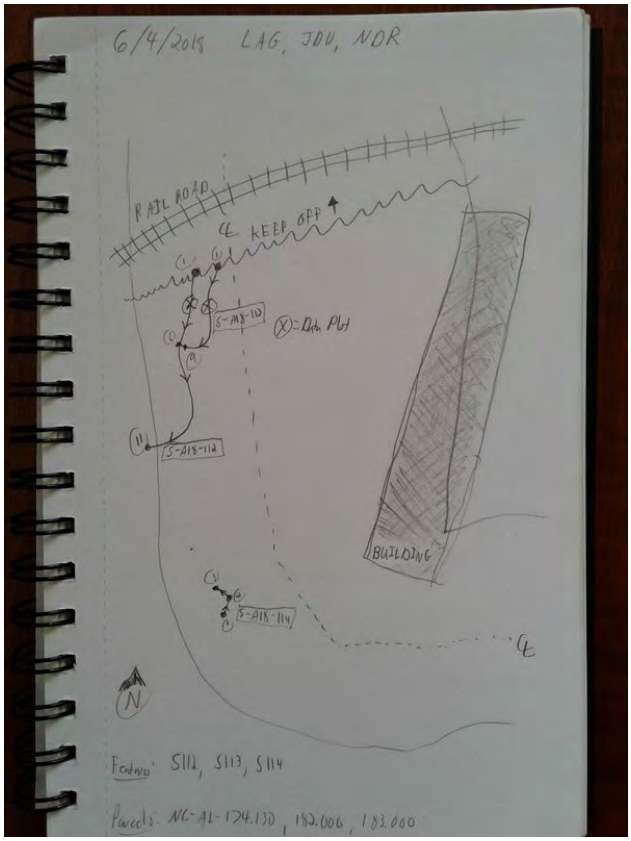
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	7
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	W

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-114

Created	2018-06-04 19:57:58 UTC by Laura Giese
Updated	2018-09-20 19:04:26 UTC by Susie Gifford (SBG)
Location	36.0883228, -79.3654563
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/04
Date2	180604

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	114
Resource ID	S-A18-114
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Seep
Calculated Stream Score	16.5
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	NW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	0.5
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	0.5
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Weak
Sinuosity of channel along thalweg	Absent
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Absent
Second or greater order channel	No
Stream Geomorphology Total	3

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Seeps out of hillside, but does not continue downslope very far before it dissipates
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SE

Downstream Stream Photo	
Downstream photo direction	NW
Across Stream Photo 1	
Across stream photo direction 1	NE

Sketch of Stream

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-115

Created	2018-06-05 09:01:01 EDT by Laura Giese
Updated	2018-06-07 08:57:08 EDT by Sam Edmonds
Location	36.0878295, -79.3634571
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/05
Date2	180605

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	115
Resource ID	S-A18-115
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	35.5
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	7
Average Water Width (ft)	5
Bank to Bank (ft)	9
Bankfull Width (ft)	9
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	High
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	High
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Strong
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Moderate
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Moderate
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	19.5

Stream Hydrology

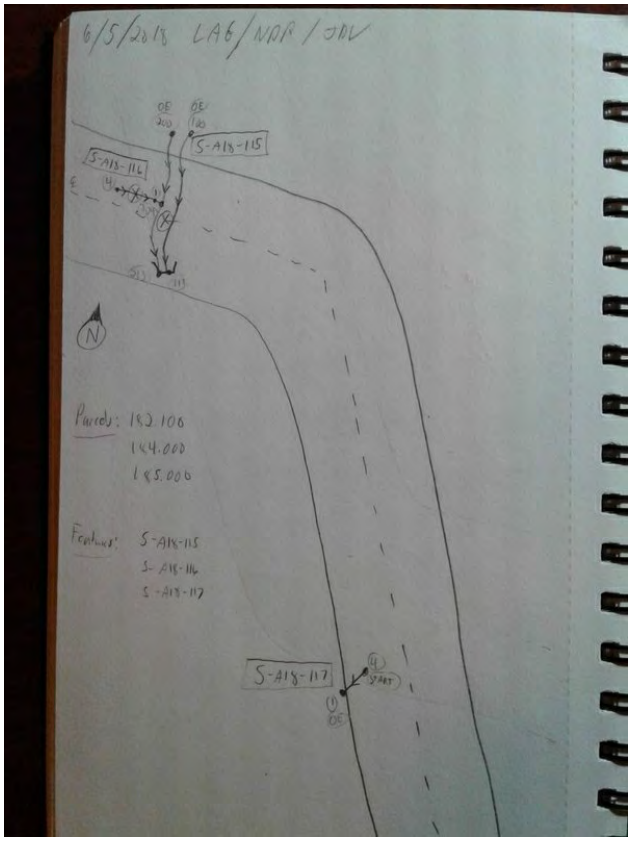
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	8
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	W

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-116

Created	2018-06-05 09:12:16 EDT by Laura Giese
Updated	2018-06-07 08:57:16 EDT by Sam Edmonds
Location	36.0876993, -79.3637052
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/05
Date2	180605

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	116
Resource ID	S-A18-116
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	14.5
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	E

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	7.5

Stream Hydrology

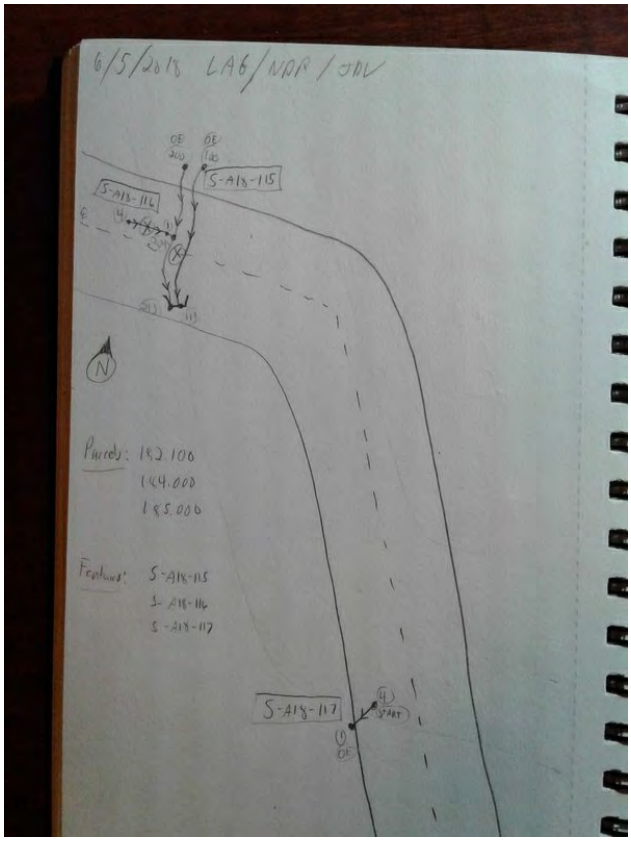
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	No
Stream Hydrology Total	1

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	W

Downstream Stream Photo	
Downstream photo direction	E
Across Stream Photo 1	
Across stream photo direction 1	S

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-117

Created	2018-06-05 09:39:32 EDT by Laura Giese
Updated	2018-06-07 08:57:22 EDT by Sam Edmonds
Location	36.0857738, -79.3616108
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/05
Date2	180605

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	117
Resource ID	S-A18-117
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	13
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Absent
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	6

Stream Hydrology

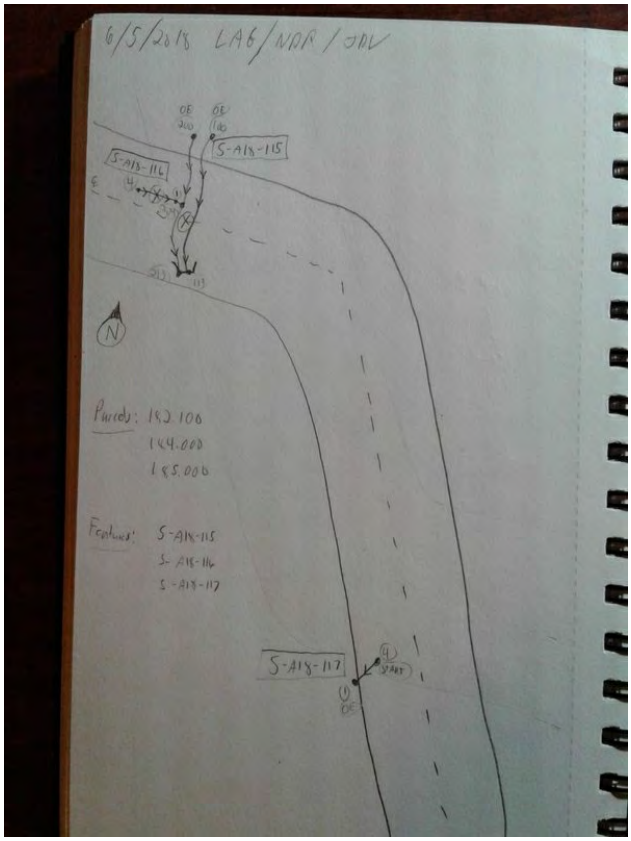
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	No
Stream Hydrology Total	1

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	NW

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-118

Created	2018-06-05 15:55:42 UTC by Laura Giese
Updated	2018-08-02 10:59:05 UTC by Laura Giese
Location	36.0483014, -79.3653906
Status	Field Crew Collected
Client	NextEra
Project	MVP Southgate
Date	18/06/05
Date2	180605

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	118
Resource ID	S-A18-118
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	15
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Strong
Second or greater order channel	No
Stream Geomorphology Total	7.5

Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	No
Stream Hydrology Total	1.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	NW
Across Stream Photo 1	
Across stream photo direction 1	N
Additional Stream Photos	

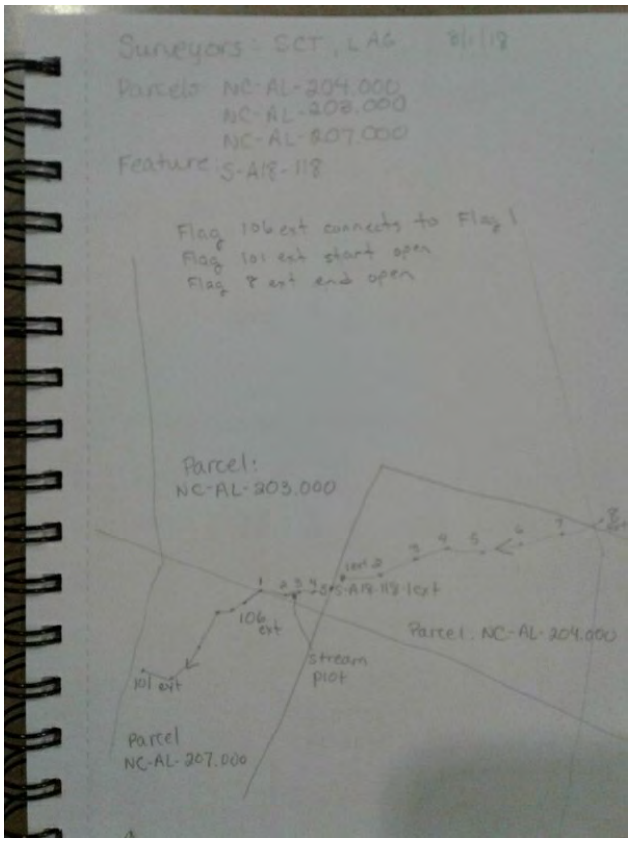
EXT DN

EXT UP

EXT 100s UP

EXT 100s DN

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-120

Created	2018-06-05 15:23:42 EDT by Laura Giese
Updated	2018-06-07 08:57:54 EDT by Sam Edmonds
Location	36.1997769, -79.5004784
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/05
Date2	180605

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	120
Resource ID	S-A18-120
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	30
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Moderate
Particle size of stream substrate	Weak
Active or relict floodplain	Moderate
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	13

Stream Hydrology

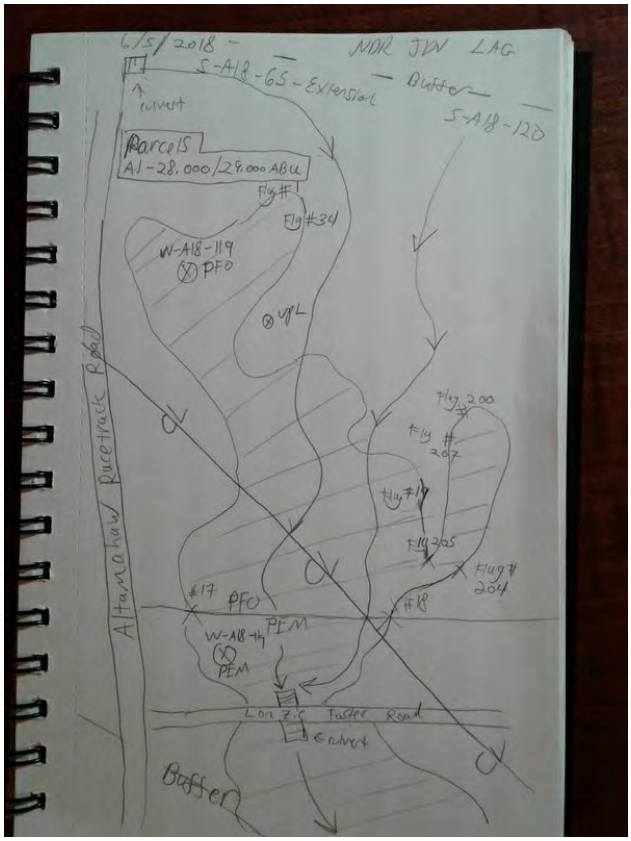
Presence of baseflow	Strong
Iron oxidizing bacteria	Strong
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	10.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Stream supported by groundwater seepage
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	W

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

WB-A18-121

Created	2018-06-06 12:47:20 UTC by Laura Giese
Updated	2018-09-20 19:15:05 UTC by Susie Gifford (SBG)
Location	36.1987482, -79.4994134
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/06
Date2	180606

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	121
Resource ID	WB-A18-121
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-121
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Pond
Calculated Stream Score	1
Calculated Stream Type	Ephemeral

Stream Conditions

Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	25
Average Water Width (ft)	25
Bank to Bank (ft)	30
Bankfull Width (ft)	30
Probed Stream Depth	> 36 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Stream Geomorphology Total	0

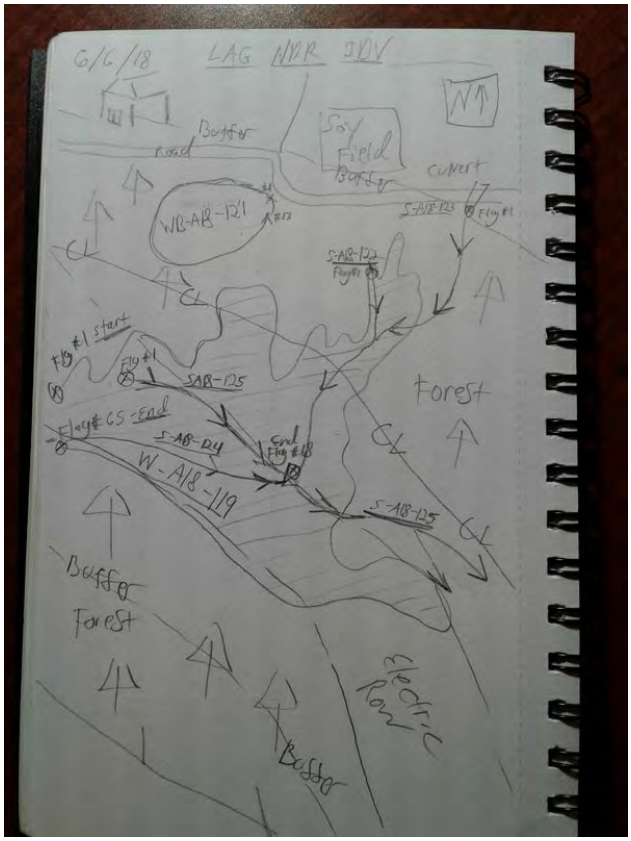
Stream Hydrology

Stream Hydrology Total	0

Stream Biology

Amphibians	Moderate
Stream Biology Total	1
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	

Upstream Stream Photo	
Upstream photo direction	E
Downstream Stream Photo	
Downstream photo direction	W

Across Stream Photo 1	
Across stream photo direction 1	S
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-122

Created	2018-06-06 10:54:18 EDT by Laura Giese
Updated	2018-06-08 09:38:56 EDT by Sam Edmonds
Location	36.1980285, -79.4986751
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/06
Date2	180606

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	122
Resource ID	S-A18-122
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	26
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	2
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Weak
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	8.5

Stream Hydrology

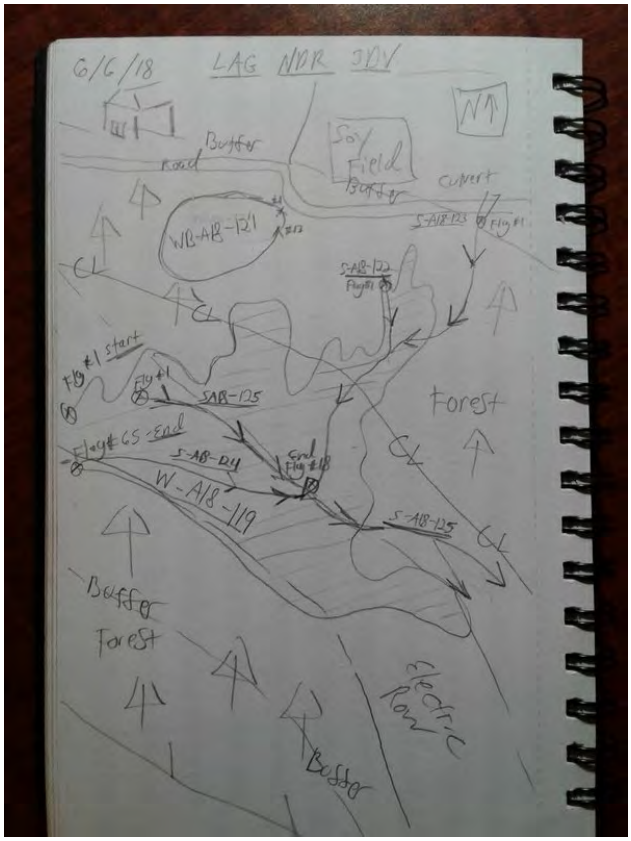
Presence of baseflow	Strong
Iron oxidizing bacteria	Strong
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	10

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Stream Biology Total	7.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Headwater groundwater seepage stream
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	SE

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-123

Created	2018-06-06 11:18:46 EDT by Laura Giese
Updated	2018-06-08 09:40:02 EDT by Sam Edmonds
Location	36.1981998, -79.498772
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/06
Date2	180606

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	123
Resource ID	S-A18-123
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	27
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Weak
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	9

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Strong
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	11

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	7
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Groundwater seepage stream, 100 series is ephemeral
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	SE

Sketch of Stream

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-124

Created	2018-06-06 12:04:14 EDT by Laura Giese
Updated	2018-06-08 09:41:05 EDT by Sam Edmonds
Location	36.1979984, -79.499596
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/06
Date2	180606

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	124
Resource ID	S-A18-124
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	24.25
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	SE

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	2
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	6 to 12 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	6.5

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Strong
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	10.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	7.25
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Headwater groundwater seepage stream
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NW

Downstream Stream Photo	
Downstream photo direction	SE
Across Stream Photo 1	
Across stream photo direction 1	N

Sketch of Stream

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-125

Created	2018-06-06 13:45:07 EDT by Laura Giese
Updated	2018-06-08 09:41:21 EDT by Sam Edmonds
Location	36.1973743, -79.498484
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/06
Date2	180606

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	125
Resource ID	S-A18-125
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	30
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	SE

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	5
Average Water Width (ft)	5
Bank to Bank (ft)	6
Bankfull Width (ft)	6
Probed Stream Depth	24 to 36 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Weak
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	14

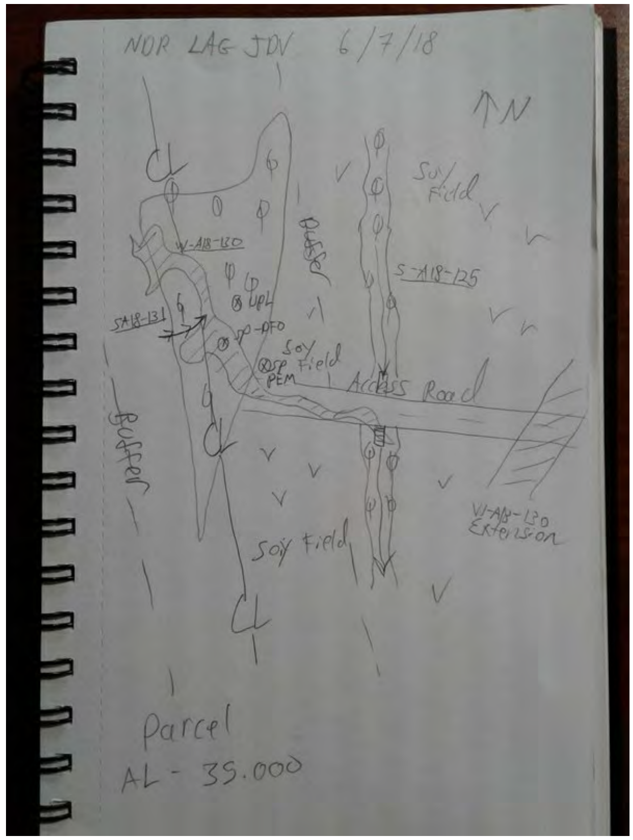
Stream Hydrology

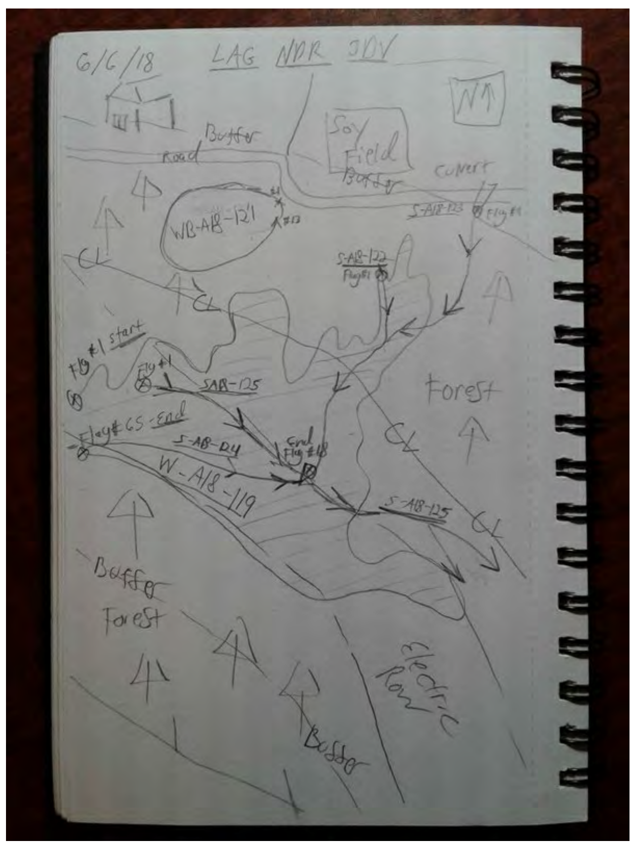
Presence of baseflow	Strong
Iron oxidizing bacteria	Weak
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	9

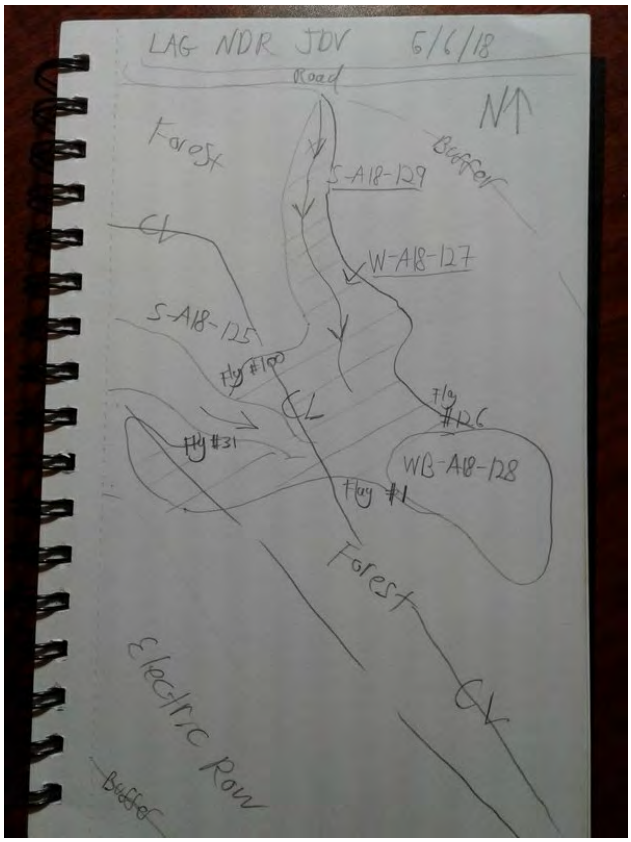
Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Moderate
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	7
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Water levels high and appear to be backed up. Obscures biology observations.
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	SE
Across Stream Photo 1	
Across stream photo direction 1	E
Sketch of Stream	


NDR LAG JDV 6/7/18
N
Soy Field
Buffer
W-A18-130
S-A18-125
S-A18-131
UPL
Soy Field
PEM
Access Road
Buffer
Soy Field
W-A18-130 Extension
CL
Parcel
AL - 35.000


6/6/18 LAG NDR JDV
N
Buffer
Road
Soy Field
Buffer
Culvert
WB-A18-121
S-A18-122
CL
Forest
S-A18-125
S-A18-124
W-A18-119
Buffer
Forest
Electric Row
Buffer



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-126

Created	2018-06-06 13:37:57 EDT by Laura Giese
Updated	2018-06-08 09:41:42 EDT by Sam Edmonds
Location	36.1973666, -79.4983859
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/06
Date2	180606

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	126
Resource ID	S-A18-126
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	10
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	E

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Absent
Particle size of stream substrate	Absent
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	3.5

Stream Hydrology

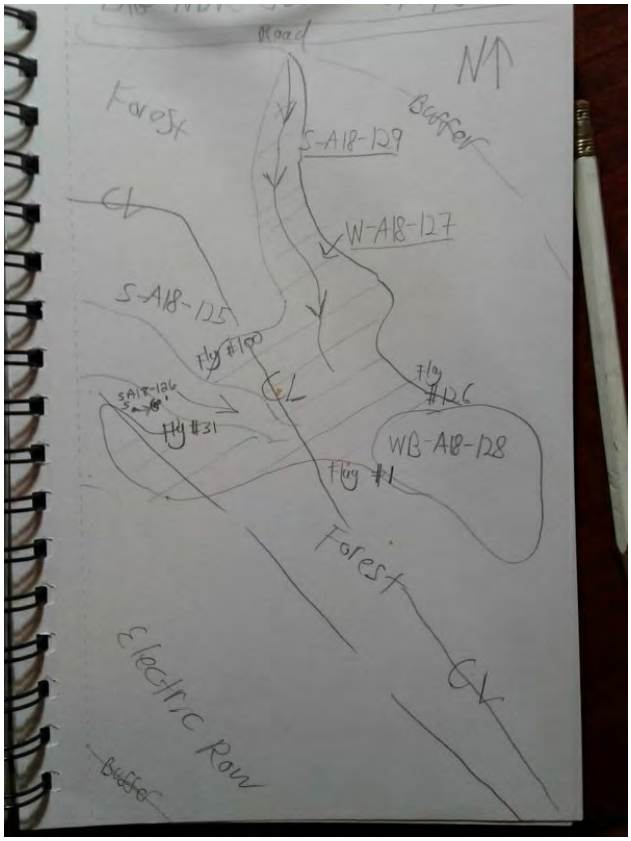
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Strong
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	No
Stream Hydrology Total	0.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	W

Downstream Stream Photo	
Downstream photo direction	E
Across Stream Photo 1	
Across stream photo direction 1	S

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

WB-A18-128

Created	2018-06-06 19:28:38 UTC by Nathan Renaudin
Updated	2018-09-20 19:15:19 UTC by Susie Gifford (SBG)
Location	36.1966106, -79.4973171
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/06
Date2	180606

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	128
Resource ID	WB-A18-128
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-128
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Pond
Calculated Stream Score	0
Calculated Stream Type	Undetermined
Wildlife Observed	Frogs
Observed Use	Swimming, Fishing

Stream Conditions

Direction of Flow	SE

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

Left Bank

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0

Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Stream Geomorphology Total	0

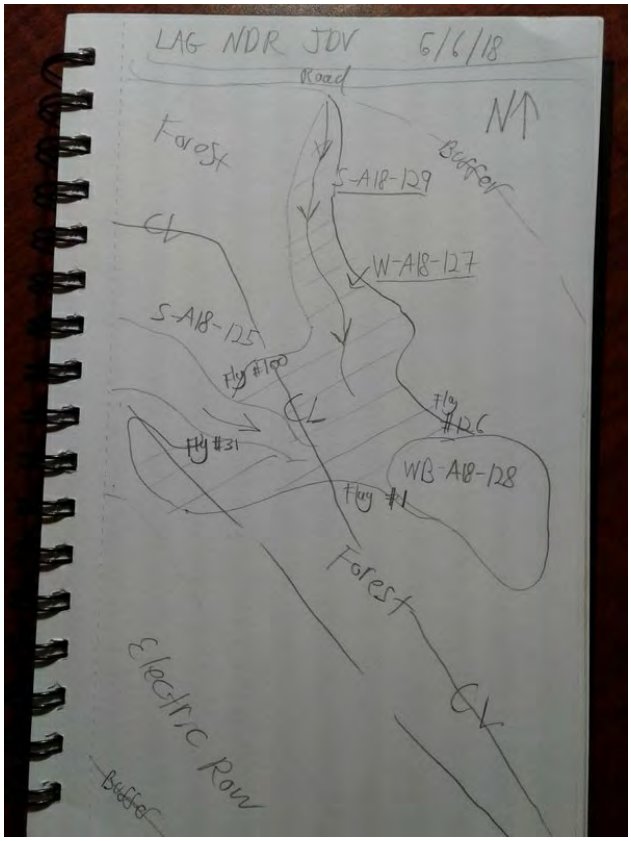
Stream Hydrology

Stream Hydrology Total	0

Stream Biology

Stream Biology Total	0
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	S

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	SW

Across Stream Photo 2	
Across stream photo direction 2	N
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-129

Created	2018-06-06 15:01:06 EDT by Nathan Renaudin
Updated	2018-06-08 09:42:53 EDT by Sam Edmonds
Location	36.1975025, -79.4979393
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/06
Date2	180606

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	129
Resource ID	S-A18-129
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	16.25
Calculated Stream Type	Ephemeral
Wildlife Observed	None
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	S
Channel condition	Marginal
In stream habitat	Poor

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	2

Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0.85
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0.85

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0.85
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0.85

Stream Geomorphology

Continuity of channel bed and bank	Weak
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Moderate
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Weak
Natural valley	Absent

Second or greater order channel	No
Stream Geomorphology Total	6.5

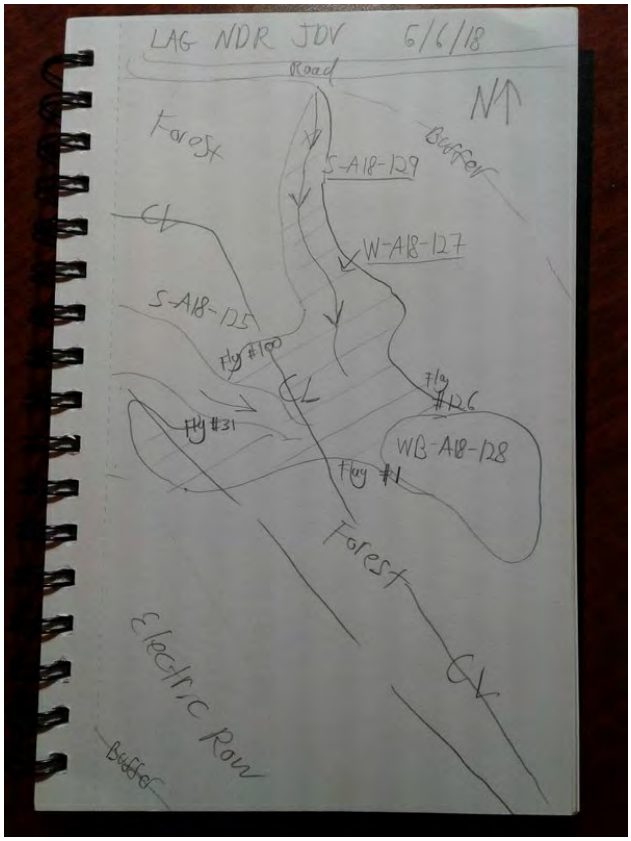
Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Weak
Leaf litter	Moderate
Sediment on plants or debris	Weak
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	6

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Moderate
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	3.75
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Stream is small and does not contain a varied sediment substrate.
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	W

Across Stream Photo 2	
Across stream photo direction 2	E
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-131

Created	2018-06-07 10:20:36 EDT by Nathan Renaudin
Updated	2018-06-08 08:59:56 EDT by Sam Edmonds
Location	36.1936633, -79.4973221
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/07
Date2	180607

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
Resource Series Number	131
Resource ID	S-A18-131
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	13.5
Calculated Stream Type	Ephemeral
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	E
Channel condition	Poor
In stream habitat	Poor

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0.75
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0.75

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0.75
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0.75

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Weak
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Absent
Second or greater order channel	No
Stream Geomorphology Total	6

Stream Hydrology

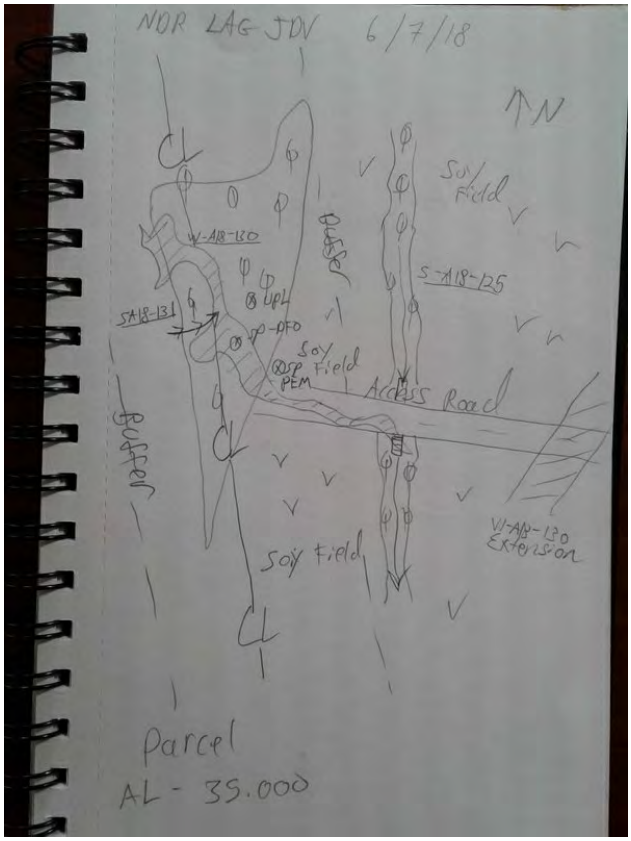
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	No
Stream Hydrology Total	1.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Stream connects to wetland 130
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	W

Downstream Stream Photo	
Downstream photo direction	E
Across Stream Photo 1	
Across stream photo direction 1	S

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-132

Created	2018-06-07 11:07:54 EDT by Nathan Renaudin
Updated	2018-06-08 08:45:46 EDT by Sam Edmonds
Location	36.1904804, -79.4963641
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/07
Date2	180607

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	132
Resource ID	S-A18-132
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	35.75
Calculated Stream Type	Perennial
Wildlife Observed	Invertebrates
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	SW
Channel condition	Marginal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	5
Average Water Width (ft)	4
Bank to Bank (ft)	5

Bankfull Width (ft)	5
Probed Stream Depth	6 to 12 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	1.1
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.1

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	1.1
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.1

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Weak
Active or relict floodplain	Weak
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Moderate
Grade control	Weak
Natural valley	Absent

Second or greater order channel	Yes
Stream Geomorphology Total	16.5

Stream Hydrology

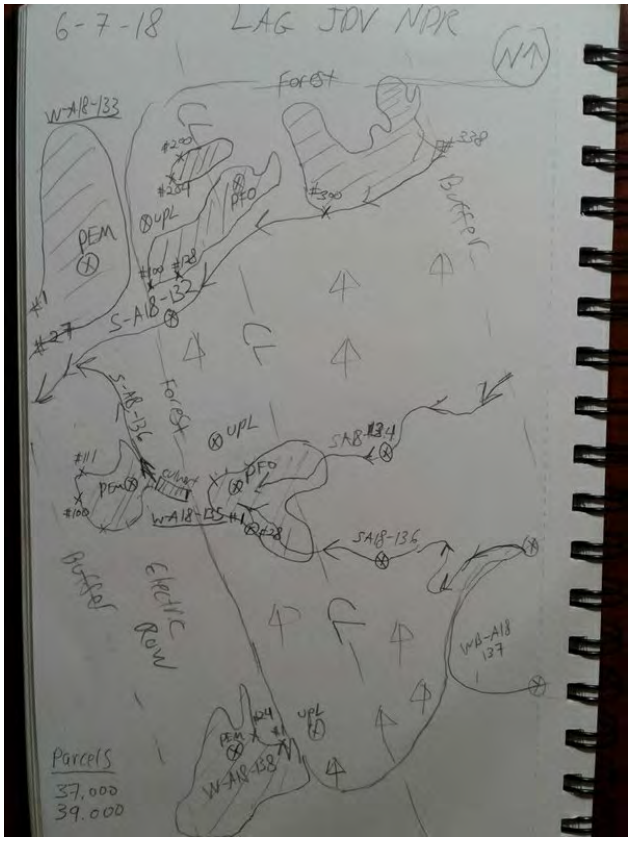
Presence of baseflow	Strong
Iron oxidizing bacteria	Weak
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	9

Stream Biology

Fibrous roots in streambed	Moderate
Rooted upland plants in streambed	Moderate
Macrobenthos	Strong
Aquatic mullusks	Moderate
Fish	Weak
Crayfish	Moderate
Amphibians	Weak
Algae	Weak
Wetland plants in streambed	FACW
Stream Biology Total	10.25
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Stream is NHD on maps.
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	S

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-134

Created	2018-06-07 14:32:13 EDT by Laura Giese
Updated	2018-06-08 08:53:44 EDT by Sam Edmonds
Location	36.1896046, -79.4958049
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/07
Date2	180607

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	134
Resource ID	S-A18-134
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	21
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Absent
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	8

Stream Hydrology

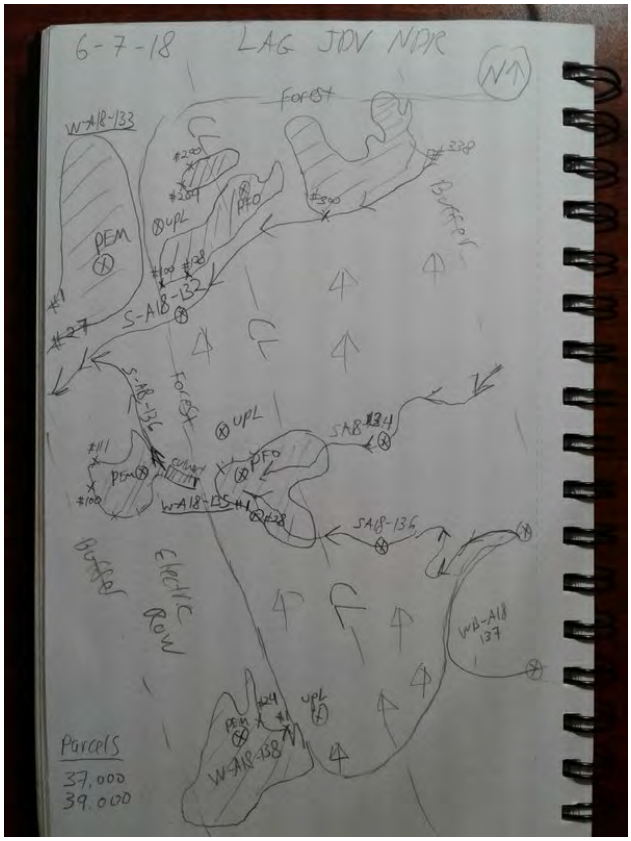
Presence of baseflow	Weak
Iron oxidizing bacteria	Moderate
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SE

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	S

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-136

Created	2018-06-07 14:15:24 EDT by Nathan Renaudin
Updated	2018-06-08 08:56:45 EDT by Sam Edmonds
Location	36.1900474, -79.4966025
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/07
Date2	180607

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
Resource Series Number	136
Resource ID	S-A18-136
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	24.25
Calculated Stream Type	Intermittent
Wildlife Observed	Invertebrates
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	SW
Channel condition	Marginal
In stream habitat	Poor

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3

Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	High
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	High
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Weak
Active or relict floodplain	Weak
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Weak
Natural valley	Absent
Second or greater order channel	No

Stream Geomorphology Total	9.5

Stream Hydrology

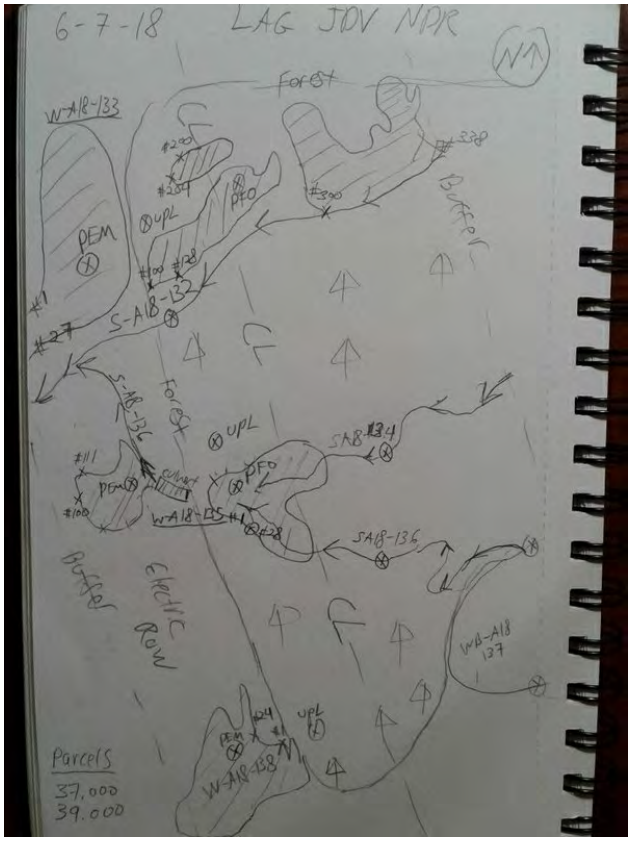
Presence of baseflow	Moderate
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	6.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Weak
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	8.25
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	S

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

WB-A18-137

Created	2018-06-07 19:26:08 UTC by Nathan Renaudin
Updated	2018-09-20 19:15:50 UTC by Susie Gifford (SBG)
Location	36.1885457, -79.4953641
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/07
Date2	180607

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	137
Resource ID	WB-A18-137
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-137
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Pond
Calculated Stream Score	0
Calculated Stream Type	Undetermined
Wildlife Observed	Waterfowl
Observed Use	Boating, Fishing

Stream Conditions

Direction of Flow	NW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

Left Bank

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0

Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Stream Geomorphology Total	0

Stream Hydrology

Stream Hydrology Total	0

Stream Biology

Stream Biology Total	0
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	NE
Across Stream Photo 1	
Across stream photo direction 1	SE

Sketch of Stream

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-140

Created	2018-06-08 15:55:10 UTC by Nathan Renaudin
Updated	2018-08-25 15:11:32 UTC by Will Buetow
Location	36.4772514, -79.6955983
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/08
Date2	180608

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	140
Resource ID	S-A18-140
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	31.75
Calculated Stream Type	Perennial
Wildlife Observed	Frogs
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	SW
Channel condition	Marginal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	4
Average Water Width (ft)	3
Bank to Bank (ft)	5

Bankfull Width (ft)	5
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	High
Right Bank Substrate	Sand

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Weak
Active or relict floodplain	Moderate
Depositional bars or benches	Weak
Recent alluvial deposits	Moderate
Headcuts	Weak
Grade control	Weak
Natural valley	Moderate

Second or greater order channel	Yes
Stream Geomorphology Total	18.5

Stream Hydrology

Presence of baseflow	Moderate
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7.5

Stream Biology

Fibrous roots in streambed	Moderate
Rooted upland plants in streambed	Moderate
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	5.75
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

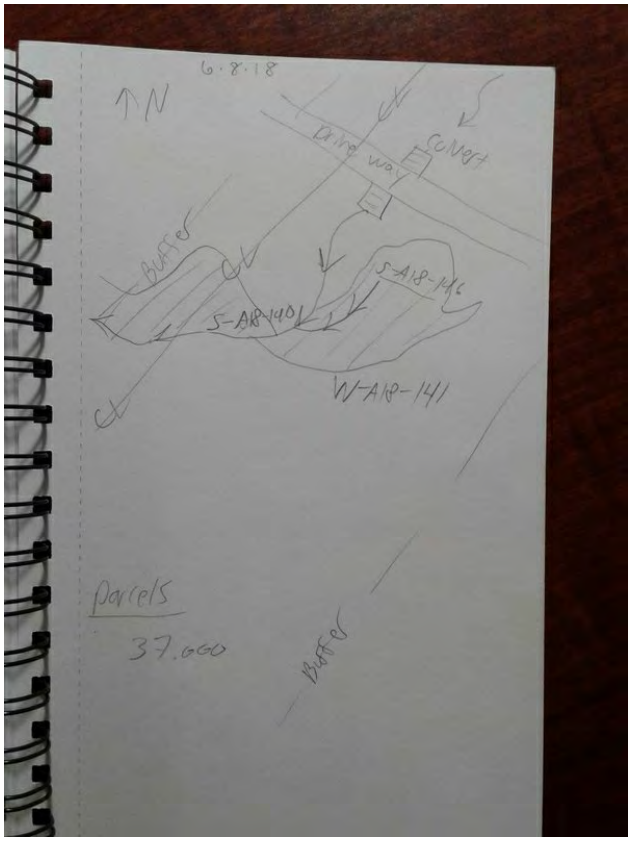
Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	W

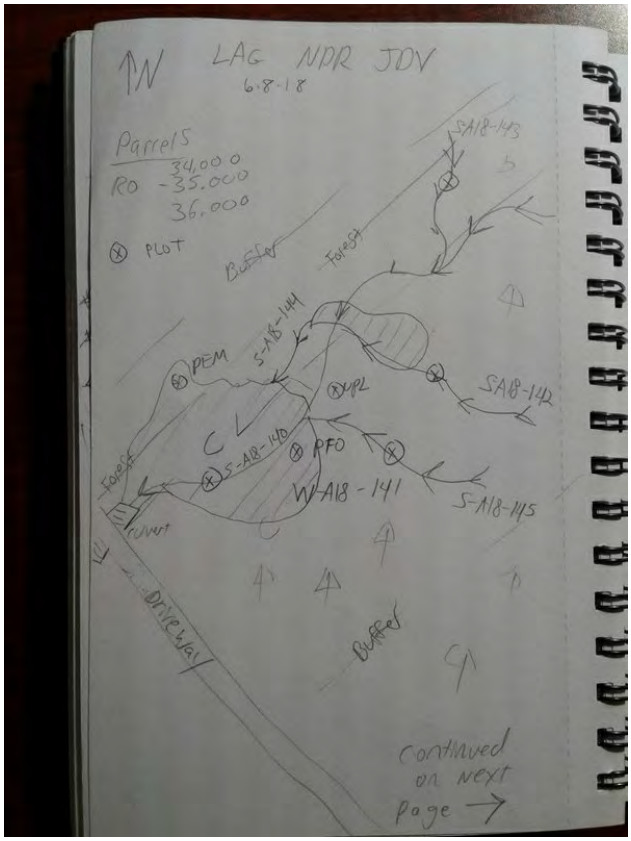
Across Stream Photo 2

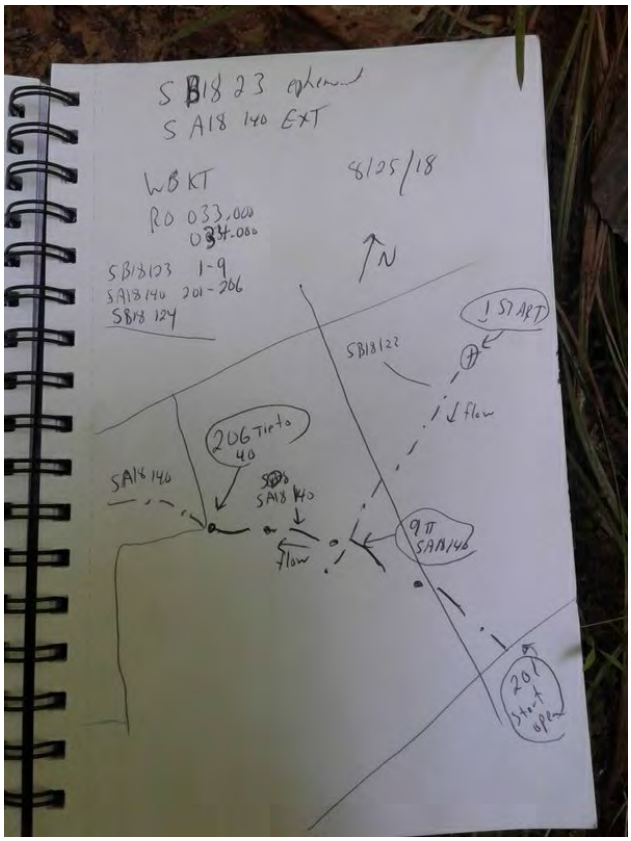
Across stream photo direction 2	E

Additional Stream Photos

Sketch of Stream


6.8.18
↑N
Driving way
Culvert
Buffer
S-A18-141
S-A18-140
W-A18-141
Parcels
37.000
Buffer


↑N
LAG NDR JDV
6.8.18
Parcels
34,000
RO - 35.000
36,000
PLOT
Buffer
Forest
S-A18-143
S-A18-144
PEM
PSS
S-A18-142
S-A18-140
PFO
W-A18-141
S-A18-145
Forest
Culvert
Driveway
Buffer
Continued on next Page →



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-142

Created	2018-06-08 16:13:27 UTC by Nathan Renaudin
Updated	2018-09-20 19:05:15 UTC by Susie Gifford (SBG)
Location	36.4774734, -79.6956271
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/08
Date2	180608

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	142
Resource ID	S-A18-142
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	25.75
Calculated Stream Type	Intermittent
Wildlife Observed	Invertebrates
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	NW
Channel condition	Poor
In stream habitat	Poor

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	2
Bank to Bank (ft)	3

Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Mud or muck

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Moderate
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Weak
Natural valley	Moderate

Second or greater order channel	No
Stream Geomorphology Total	10.5

Stream Hydrology

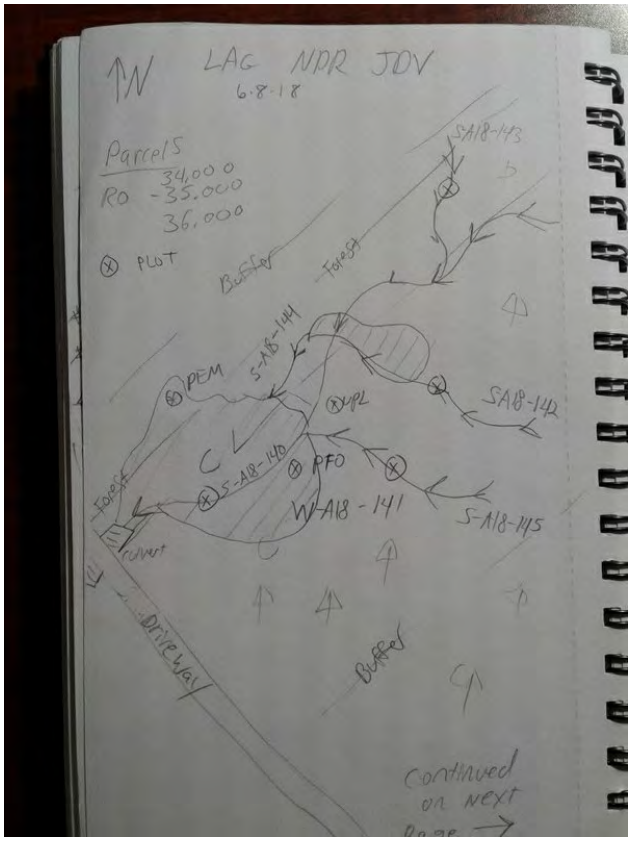
Presence of baseflow	Moderate
Iron oxidizing bacteria	Weak
Leaf litter	Moderate
Sediment on plants or debris	Moderate
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Weak
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Moderate
Algae	Weak
Wetland plants in streambed	FACW
Stream Biology Total	7.25
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	N

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-143

Created	2018-06-08 12:47:45 EDT by Nathan Renaudin
Updated	2018-06-11 09:48:54 EDT by Sam Edmonds
Location	36.4782921, -79.6947593
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/08
Date2	180608

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	143
Resource ID	S-A18-143
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	28.75
Calculated Stream Type	Intermittent
Wildlife Observed	Invertebrates
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	S
Channel condition	Marginal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	2
Bank to Bank (ft)	3

Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	High
Left Bank Substrate	Mud or muck, Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	High
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Moderate
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Weak
Natural valley	Moderate

Second or greater order channel	No
Stream Geomorphology Total	13.5

Stream Hydrology

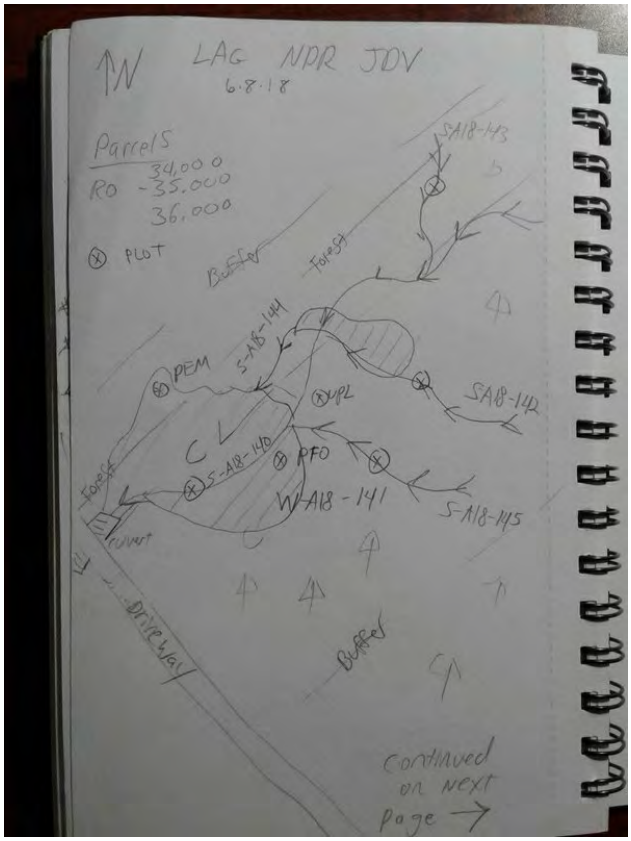
Presence of baseflow	Moderate
Iron oxidizing bacteria	Weak
Leaf litter	Moderate
Sediment on plants or debris	Moderate
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Weak
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Moderate
Algae	Weak
Wetland plants in streambed	FACW
Stream Biology Total	7.25
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	W

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	W

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-144

Created	2018-06-08 13:26:36 EDT by Nathan Renaudin
Updated	2018-06-11 09:55:32 EDT by Sam Edmonds
Location	36.4773703, -79.6957725
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/08
Date2	180608

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	144
Resource ID	S-A18-144
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	23.25
Calculated Stream Type	Intermittent
Wildlife Observed	Invertebrates
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	S
Channel condition	Poor
In stream habitat	Poor

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	2

Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Mud or muck, Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Peat-Muck, Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Weak
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Moderate
Depositional bars or benches	Absent
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Weak
Natural valley	Weak

Second or greater order channel	No
Stream Geomorphology Total	9

Stream Hydrology

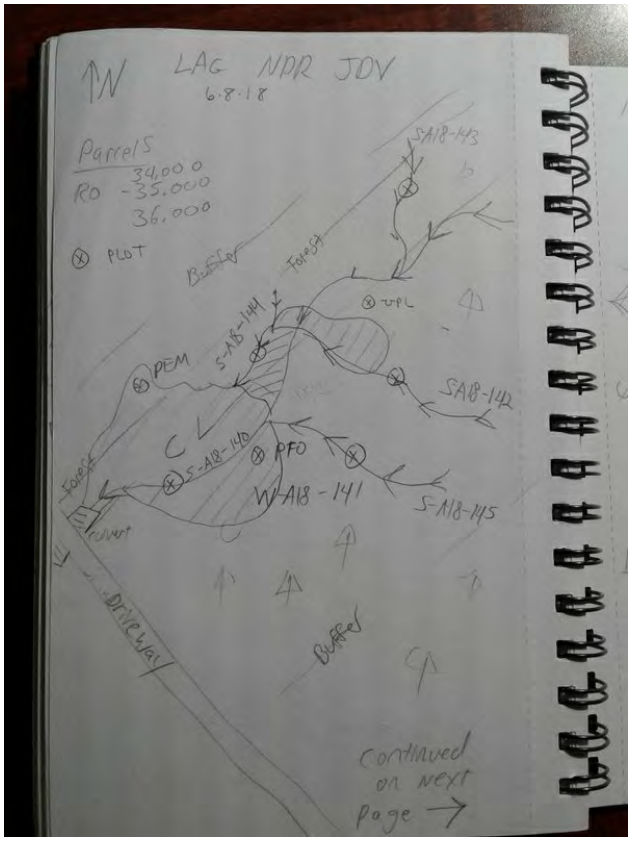
Presence of baseflow	Weak
Iron oxidizing bacteria	Weak
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Weak
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Moderate
Algae	Weak
Wetland plants in streambed	FACW
Stream Biology Total	7.25
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	W

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-145

Created	2018-06-08 13:52:43 EDT by Nathan Renaudin
Updated	2018-06-11 09:56:38 EDT by Sam Edmonds
Location	36.4769592, -79.6959324
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/08
Date2	180608

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	145
Resource ID	S-A18-145
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	20.5
Calculated Stream Type	Intermittent
Wildlife Observed	Invertebrates
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	W
Channel condition	Poor
In stream habitat	Poor

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3

Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	High
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	High
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Weak
Natural valley	Weak

Second or greater order channel	No
Stream Geomorphology Total	9

Stream Hydrology

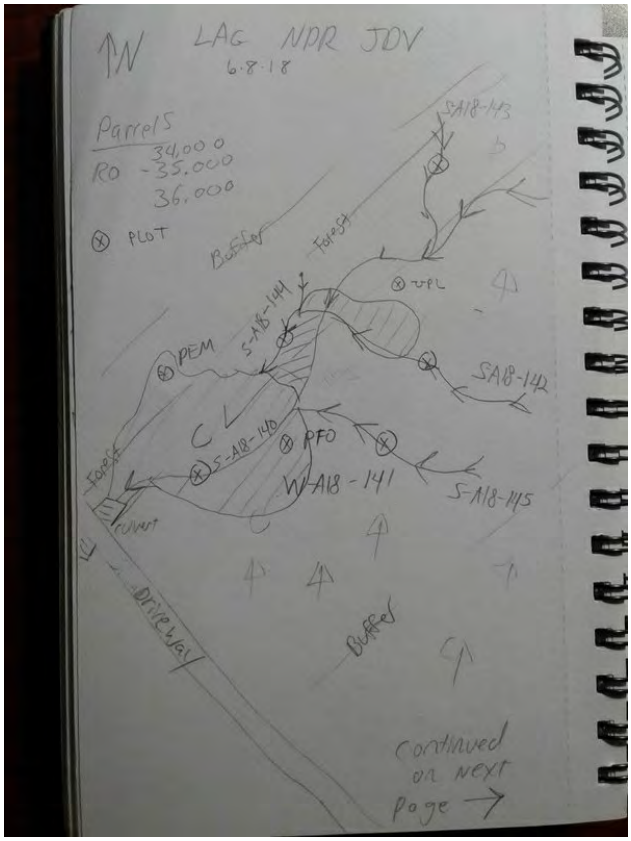
Presence of baseflow	Weak
Iron oxidizing bacteria	Weak
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	No
Stream Hydrology Total	4

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Weak
Wetland plants in streambed	Other
Stream Biology Total	7.5
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	NE

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-146

Created	2018-06-08 14:15:07 EDT by Laura Giese
Updated	2018-06-11 09:58:23 EDT by Sam Edmonds
Location	36.4763267, -79.6967131
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	//
Date2	180611

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	146
Resource ID	S-A18-146
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	28.5
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	2
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Moderate
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	10.5

Stream Hydrology

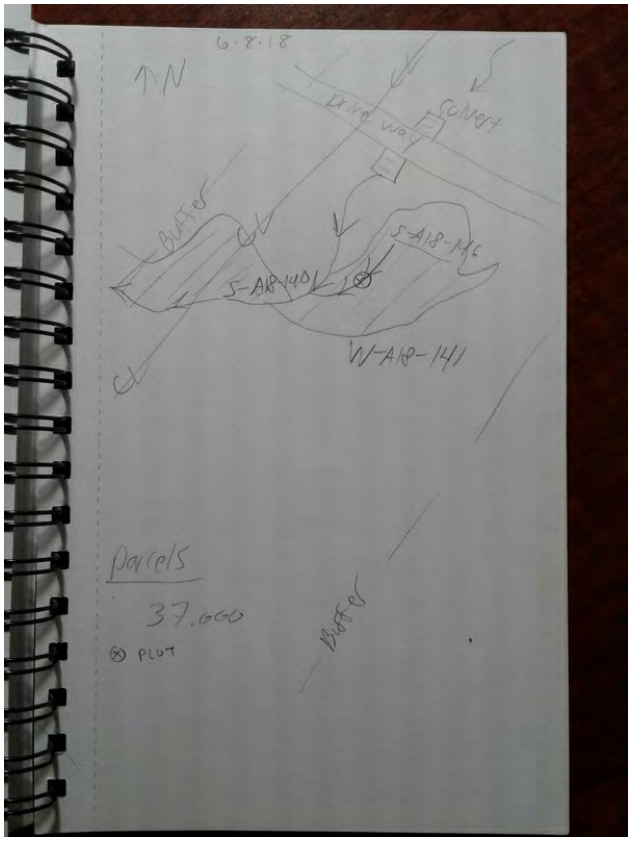
Presence of baseflow	Strong
Iron oxidizing bacteria	Strong
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	10.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Moderate
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	7.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Headwater groundwater seepage stream
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	W

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-147

Created	2018-06-08 15:35:28 EDT by Nathan Renaudin
Updated	2018-06-11 10:03:45 EDT by Sam Edmonds
Location	36.4747763, -79.6979145
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/08
Date2	180608

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
Resource Series Number	147
Resource ID	S-A18-147
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	36.25
Calculated Stream Type	Perennial
Wildlife Observed	Invertebrates
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	NW
Channel condition	Suboptimal
In stream habitat	Optimal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	15
Average Water Width (ft)	10
Bank to Bank (ft)	4
Bankfull Width (ft)	4

Probed Stream Depth	12 to 24 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	High
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Moderate
Depositional bars or benches	Weak
Recent alluvial deposits	Moderate
Headcuts	Absent
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	No

Stream Geomorphology Total	17

Stream Hydrology

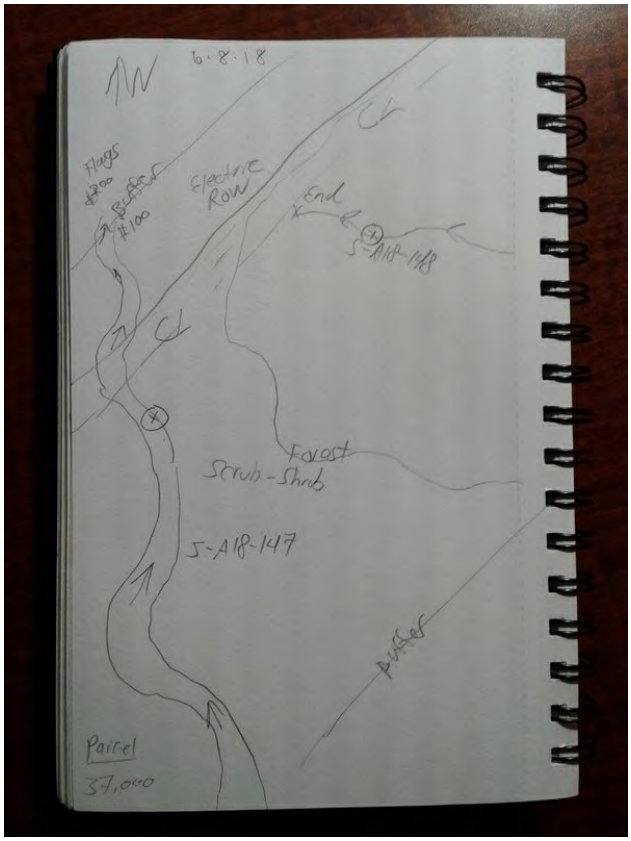
Presence of baseflow	Strong
Iron oxidizing bacteria	Weak
Leaf litter	Absent
Sediment on plants or debris	Weak
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	9

Stream Biology

Fibrous roots in streambed	Moderate
Rooted upland plants in streambed	Strong
Macrobenthos	Strong
Aquatic mullusks	Weak
Fish	Moderate
Crayfish	Strong
Amphibians	Moderate
Algae	Moderate
Wetland plants in streambed	FACW
Stream Biology Total	10.25
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NW

Downstream Stream Photo	
Downstream photo direction	SE
Across Stream Photo 1	
Across stream photo direction 1	S

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-148

Created	2018-06-08 16:20:36 EDT by Laura Giese
Updated	2018-06-25 10:55:23 EDT by Sam Edmonds
Location	36.4756012, -79.6971135
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	//
Date2	180611

Resource Crew Info

Field Crew	Laura Giese, Jeff Vandeveer, Nate Renaudin
Lead Scientist's Initials	A18
GPS Surveyor	Jeff Vandeveer
GPS ID	NA
Resource Series Number	148
Resource ID	S-A18-148
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	15.5
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	2
Bank to Bank (ft)	6
Bankfull Width (ft)	6
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Strong
Second or greater order channel	No
Stream Geomorphology Total	7.5

Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	No
Stream Hydrology Total	2

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Broad wash area in upper reach
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	N
Additional Stream Photos	

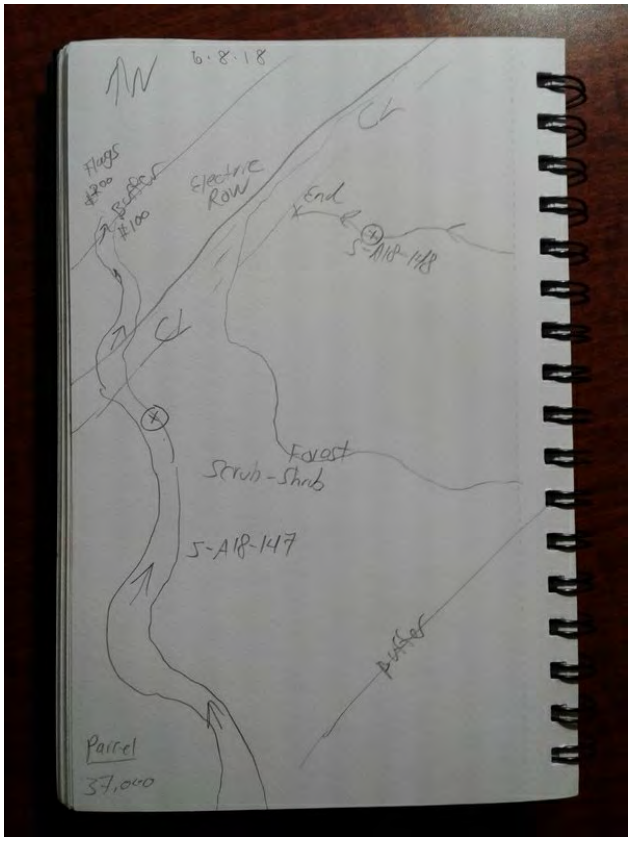
Broad wash area in upper reach-Additional of original survey

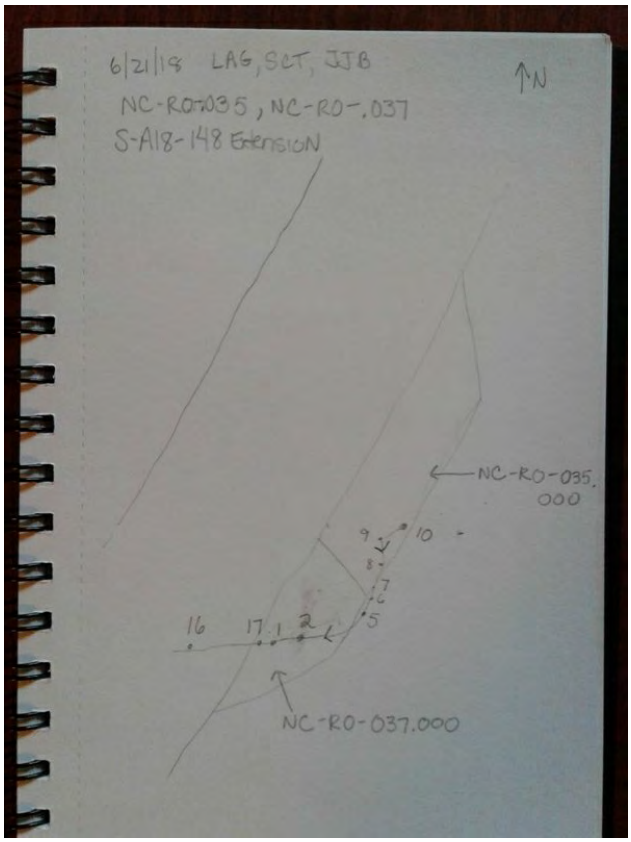
Downstream

Upstream

Across

Sketch of Stream





Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-150

Created	2018-06-11 12:28:57 EDT by Laura Giese
Updated	2018-06-12 11:42:00 EDT by Sam Edmonds
Location	36.4713621, -79.7010792
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/11
Date2	180611

Resource Crew Info

Field Crew	Joe Roy, Laura Giese, Jake Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	150
Resource ID	S-A18-150
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	17
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	9

Stream Hydrology

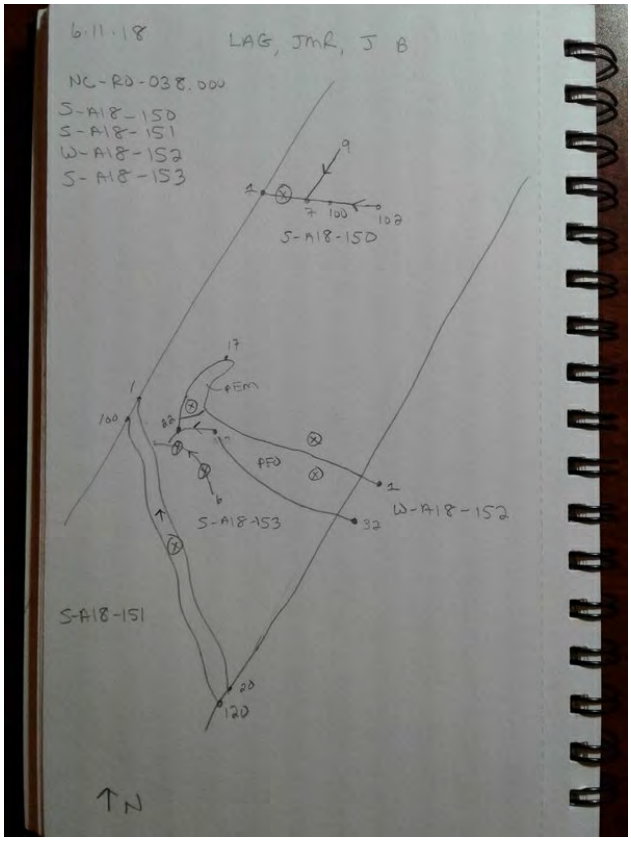
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	No
Stream Hydrology Total	2

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Channel vegetated through ROW
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	S

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-151

Created	2018-06-11 15:20:34 EDT by Laura Giese
Updated	2018-06-18 15:54:54 EDT by Sam Edmonds
Location	36.4693929, -79.7027499
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/11
Date2	180611

Resource Crew Info

Field Crew	Joe Roy, Laura Giese, Jake Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	151
Resource ID	S-A18-151
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	37.5
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	N

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	30
Average Water Width (ft)	15
Bank to Bank (ft)	40
Bankfull Width (ft)	40
Probed Stream Depth	6 to 12 inches

Left Bank

Left Bank Height (feet)	8
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	6
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Strong
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Moderate
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	19

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

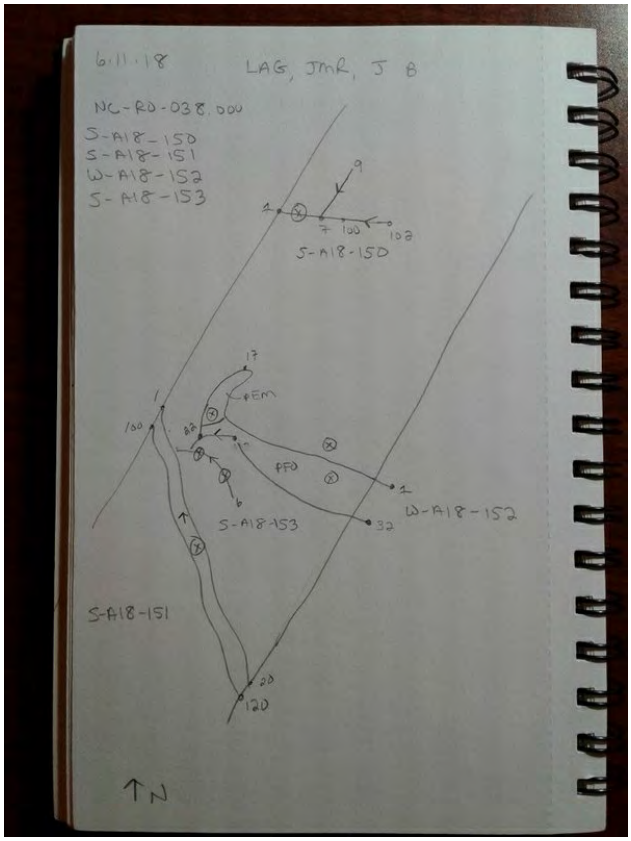
Stream Biology

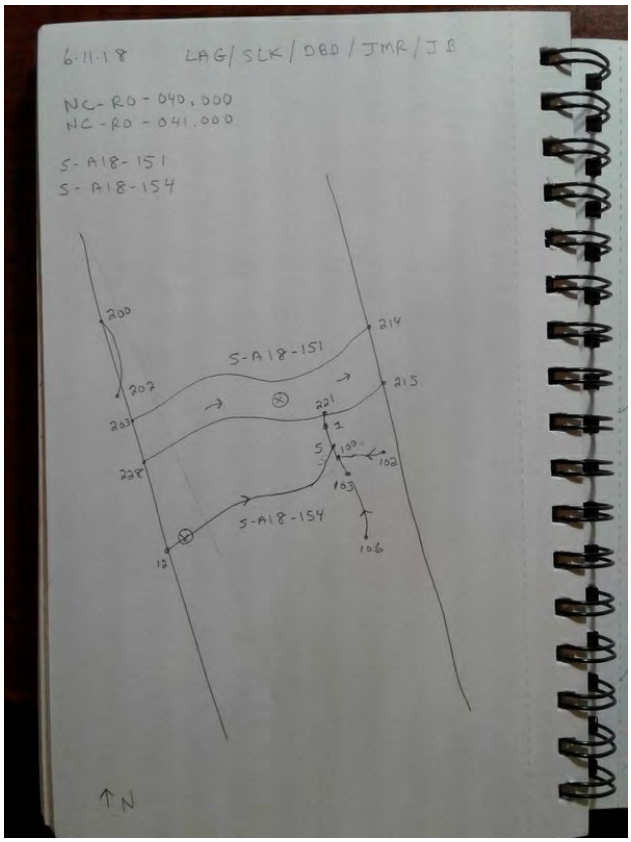
Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Strong
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Strong
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	10.5
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	S

Downstream Stream Photo	
Downstream photo direction	N
Across Stream Photo 1	
Across stream photo direction 1	W

Additional Stream Photos

Sketch of Stream





Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-153

Created	2018-06-11 19:08:01 UTC by Laura Giese
Updated	2018-09-20 19:05:32 UTC by Susie Gifford (SBG)
Location	36.4697694, -79.7025599
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/11
Date2	180611

Resource Crew Info

Field Crew	Joe Roy, Laura Giese, Jake Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	153
Resource ID	S-A18-153
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	21
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Weak
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	10

Stream Hydrology

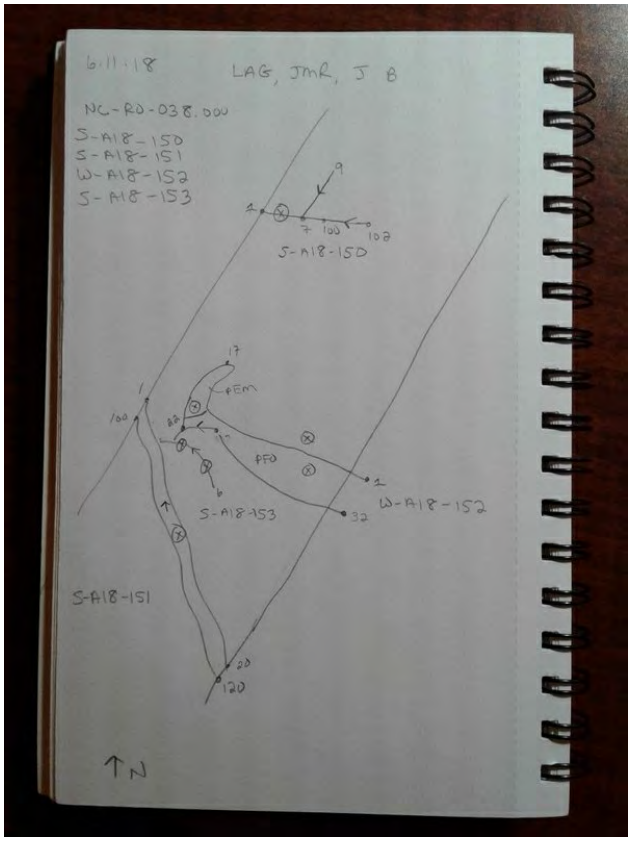
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	Corps Jurisdictional
Notes	Flags 4 to 6 are ephemeral
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	S

Downstream Stream Photo	
Downstream photo direction	NW
Across Stream Photo 1	
Across stream photo direction 1	SW

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-154

Created	2018-06-12 09:56:18 EDT by Laura Giese
Updated	2018-06-18 15:24:43 EDT by Sam Edmonds
Location	36.4648749, -79.7030882
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/12
Date2	180612

Resource Crew Info

Field Crew	Laura Giese, Simon King, Doreen Donovan
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	154
Resource ID	S-A18-154
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	23
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	NE

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	2
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	5
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	5
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Absent
Natural valley	Weak
Second or greater order channel	Yes
Stream Geomorphology Total	11.5

Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Weak
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	5.5

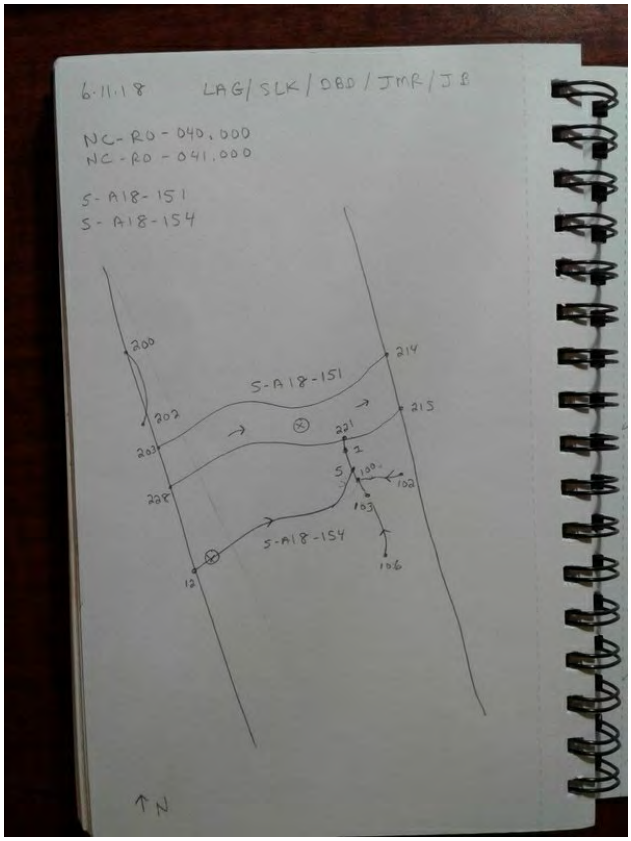
Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Main series appears altered, Additional photo 1 is 100 series, Additional photo 2 is 200 series, both upstream
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SW

Downstream Stream Photo	
Downstream photo direction	NE
Across Stream Photo 1	
Across stream photo direction 1	N

Additional Stream Photos

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-156

Created	2018-06-12 17:12:30 EDT by Laura Giese
Updated	2018-06-13 11:31:14 EDT by Sam Edmonds
Location	36.5247731, -79.6479571
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/12
Date2	180612

Resource Crew Info

Field Crew	Joe Roy, Laura Giese
Lead Scientist's Initials	A18
GPS Surveyor	Joe Roy
GPS ID	NA
Resource Series Number	156
Resource ID	S-A18-156
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	15
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SE

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	2
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	6.5

Stream Hydrology

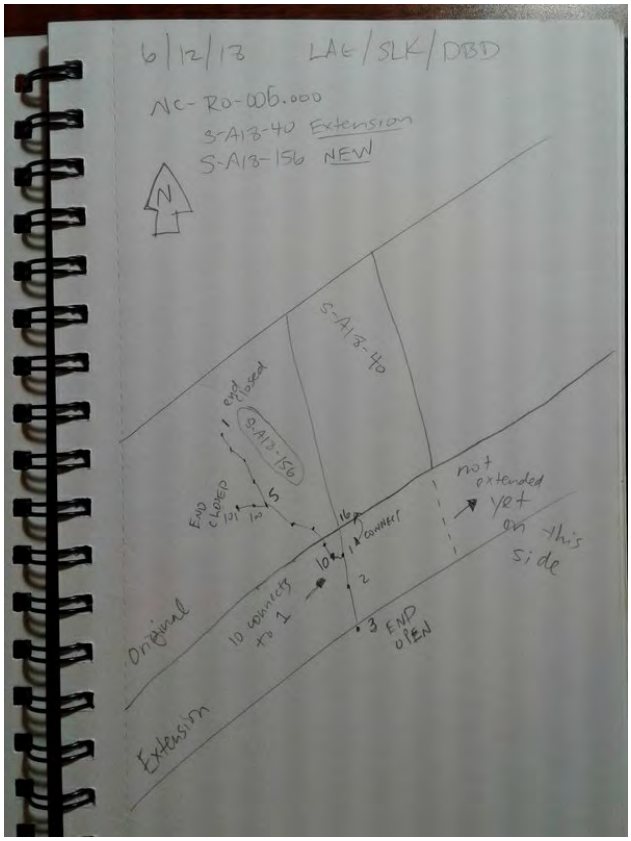
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Weak
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	No
Stream Hydrology Total	2.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Channel appears straightened
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NW

Downstream Stream Photo	
Downstream photo direction	SE
Across Stream Photo 1	
Across stream photo direction 1	SW

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-157

Created	2018-06-13 12:27:03 EDT by Laura Giese
Updated	2018-06-14 13:47:57 EDT by Sam Edmonds
Location	36.5282902, -79.6443542
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/13
Date2	180613

Resource Crew Info

Field Crew	Laura Giese, Simon King, Doreen Donovan
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	157
Resource ID	S-A18-157
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	15
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Absent
Natural valley	Absent
Second or greater order channel	No
Stream Geomorphology Total	8

Stream Hydrology

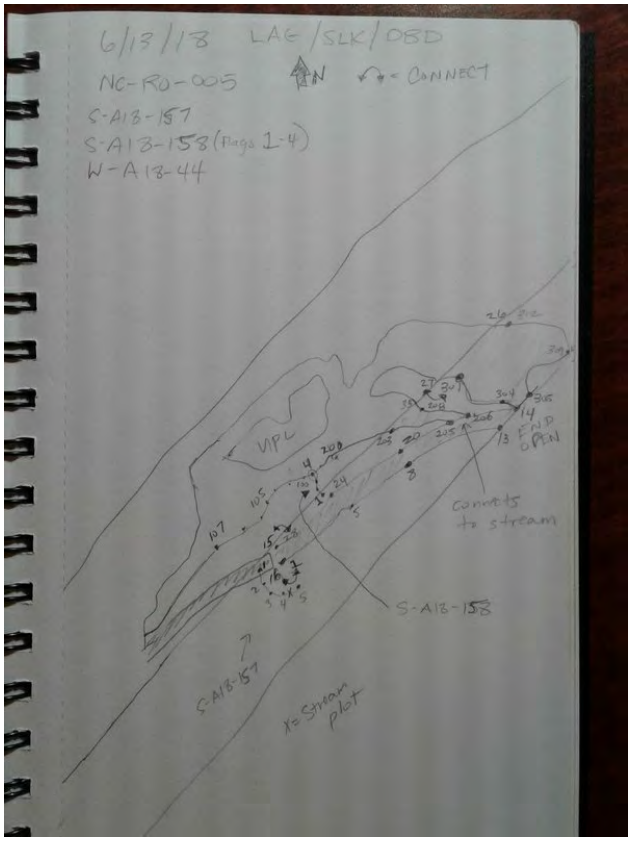
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	No
Stream Hydrology Total	1

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	S

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-158

Created	2018-06-13 13:08:32 EDT by Laura Giese
Updated	2018-06-14 13:48:45 EDT by Sam Edmonds
Location	36.5286065, -79.6439707
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/13
Date2	180613

Resource Crew Info

Field Crew	Laura Giese, Simon King, Doreen Donovan
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	158
Resource ID	S-A18-158
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	26
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Weak
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	10

Stream Hydrology

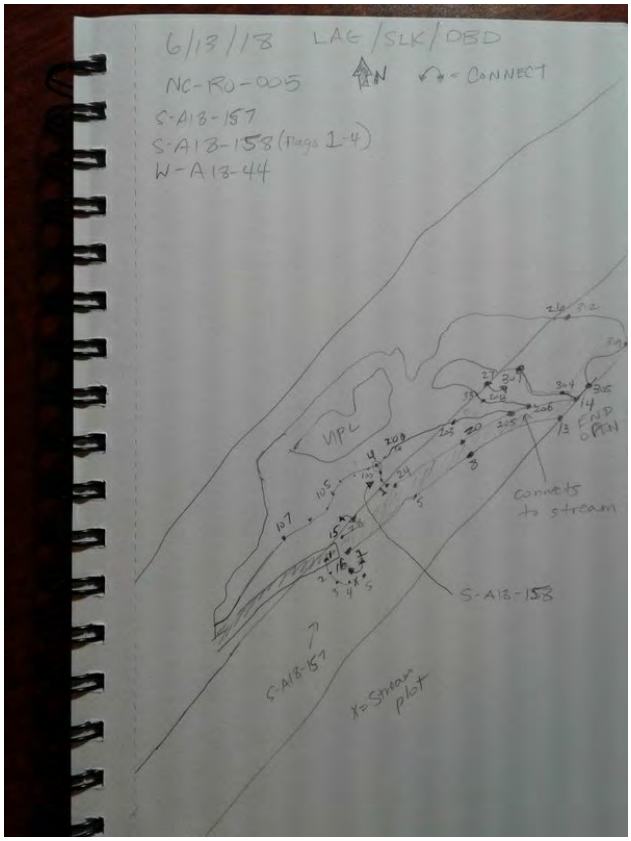
Presence of baseflow	Strong
Iron oxidizing bacteria	Weak
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Weak
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	7.5
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	W

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-159

Created	2018-06-13 19:41:29 UTC by Laura Giese
Updated	2018-09-20 19:05:53 UTC by Susie Gifford (SBG)
Location	36.5092692, -79.6637306
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/13
Date2	180613

Resource Crew Info

Field Crew	Laura Giese, Simon King, Doreen Donovan
Lead Scientist's Initials	A18
GPS Surveyor	Laura Giese
GPS ID	NA
Resource Series Number	159
Resource ID	S-A18-159
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	18
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SE

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated, Leaves

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated, Leaves

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Strong
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	11

Stream Hydrology

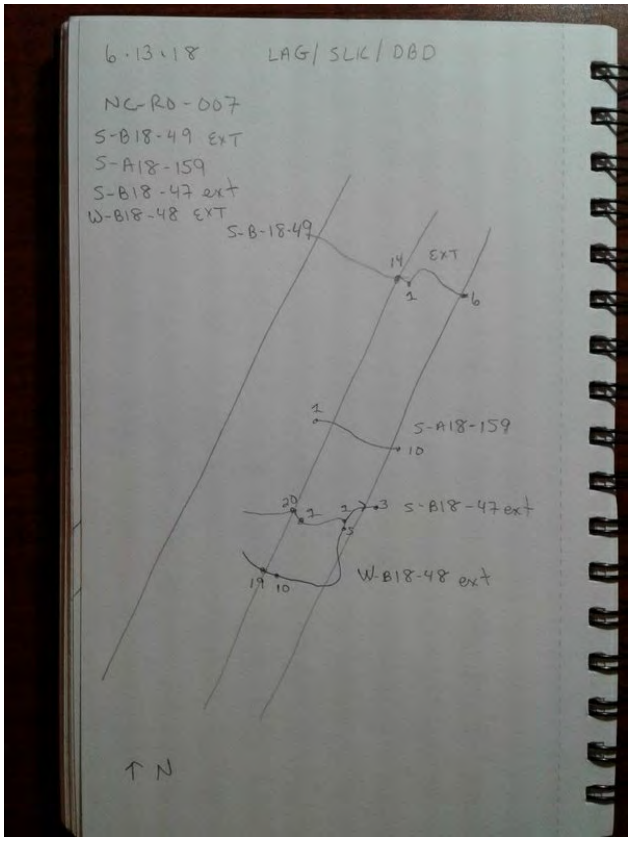
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	No
Stream Hydrology Total	1

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	W

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-160

Created	2018-06-14 12:58:29 EDT by Laura Giese
Updated	2018-06-15 09:24:51 EDT by Sam Edmonds
Location	36.5053897, -79.6677131
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/14
Date2	180614

Resource Crew Info

Field Crew	Joe Roy, Laura Giese, Simon King, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Simon King
GPS ID	NA
Resource Series Number	160
Resource ID	S-A18-160
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	17
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Weak
Natural valley	Strong
Second or greater order channel	No
Stream Geomorphology Total	10

Stream Hydrology

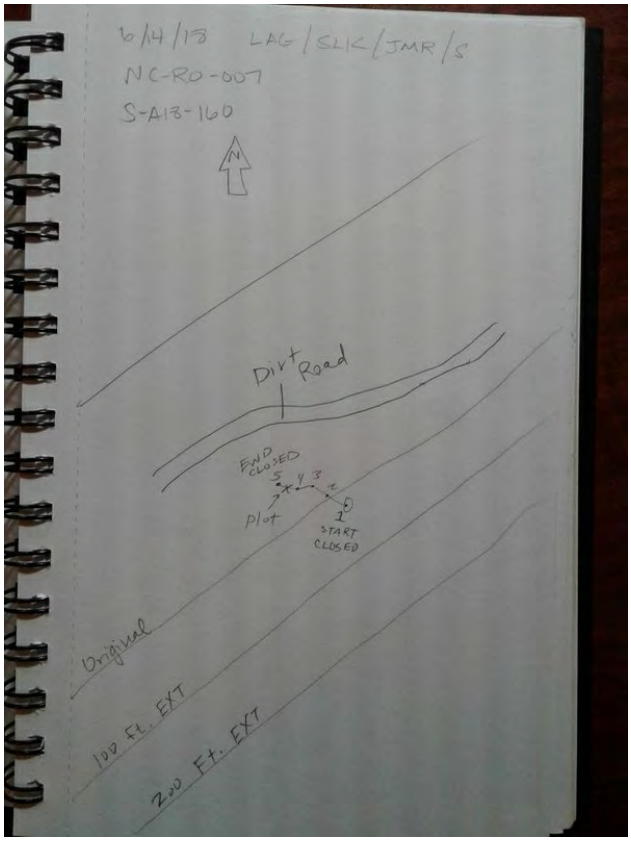
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Strong
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	No
Stream Hydrology Total	1

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Channel doesn't continue downslope.
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	S

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-161

Created	2018-06-18 10:06:59 EDT by Laura Giese
Updated	2018-06-19 12:03:56 EDT by Sam Edmonds
Location	36.1610423, -79.4575485
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/18
Date2	180618

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	161
Resource ID	S-A18-161
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	18
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	N

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	2
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	7.5

Stream Hydrology

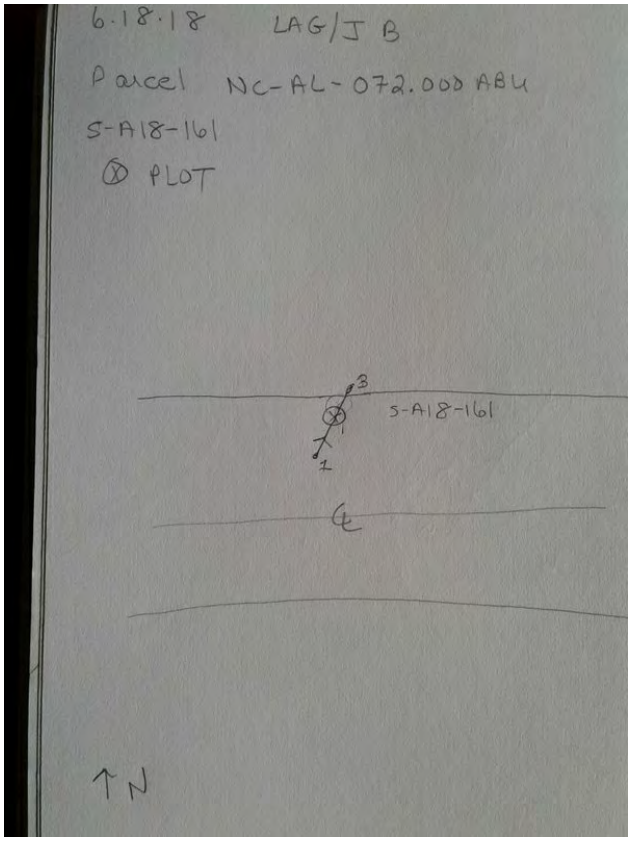
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	4.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Short headwater low channel leads into offsite pond
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	S

Downstream Stream Photo	
Downstream photo direction	N
Across Stream Photo 1	
Across stream photo direction 1	W

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-162

Created	2018-06-18 11:23:31 EDT by Laura Giese
Updated	2018-06-19 12:04:57 EDT by Sam Edmonds
Location	36.2083465, -79.5112005
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/18
Date2	180618

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	162
Resource ID	S-A18-162
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	22.5
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	NW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Sand, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Sand, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Absent
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	8

Stream Hydrology

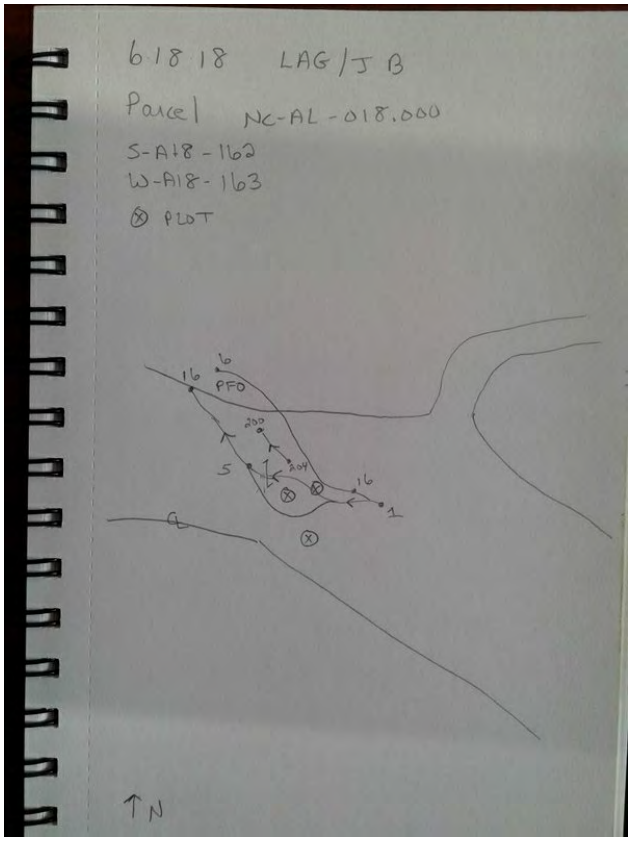
Presence of baseflow	Weak
Iron oxidizing bacteria	Strong
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Headwater groundwater seepage stream
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SE

Downstream Stream Photo	
Downstream photo direction	NW
Across Stream Photo 1	
Across stream photo direction 1	N

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

WB-A18-164

Created	2018-06-18 17:05:58 UTC by Laura Giese
Updated	2018-09-20 19:16:27 UTC by Susie Gifford (SBG)
Location	36.2063637, -79.507989
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/18
Date2	180618

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	164
Resource ID	WB-A18-164
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-164
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Pond
Calculated Stream Score	0
Calculated Stream Type	Undetermined

Stream Conditions

Direction of Flow	NW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

Left Bank

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0

Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Stream Geomorphology Total	0

Stream Hydrology

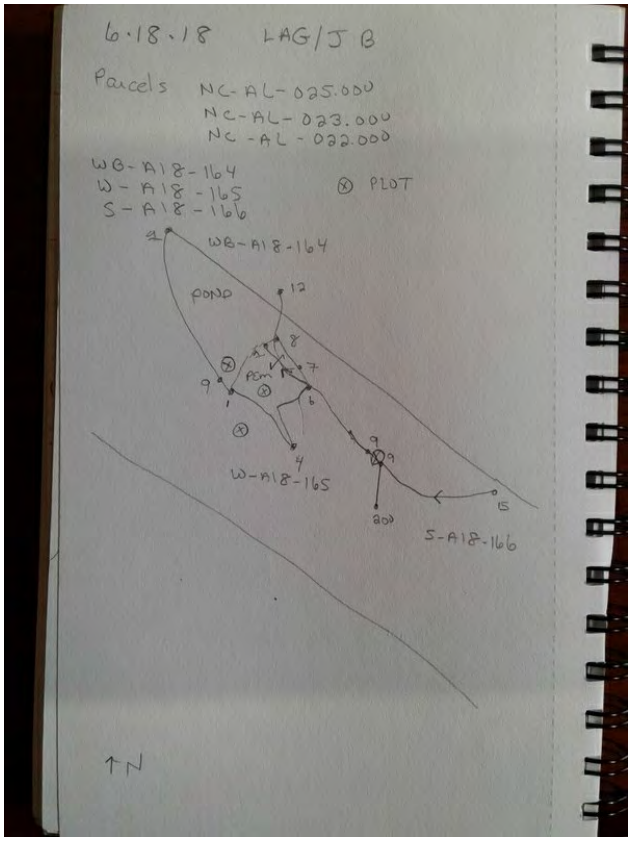
Stream Hydrology Total	0

Stream Biology

Stream Biology Total	0
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SE

Downstream Stream Photo	
Downstream photo direction	N
Across Stream Photo 1	
Across stream photo direction 1	NE

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-166

Created	2018-06-18 14:46:59 EDT by Laura Giese
Updated	2018-06-19 12:08:47 EDT by Sam Edmonds
Location	36.2056615, -79.5074077
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/18
Date2	180618

Resource Crew Info

Field Crew	Joe Roy, Laura Giese, Jake Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	166
Resource ID	S-A18-166
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	28.5
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	NW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	13

Stream Hydrology

Presence of baseflow	Moderate
Iron oxidizing bacteria	Weak
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

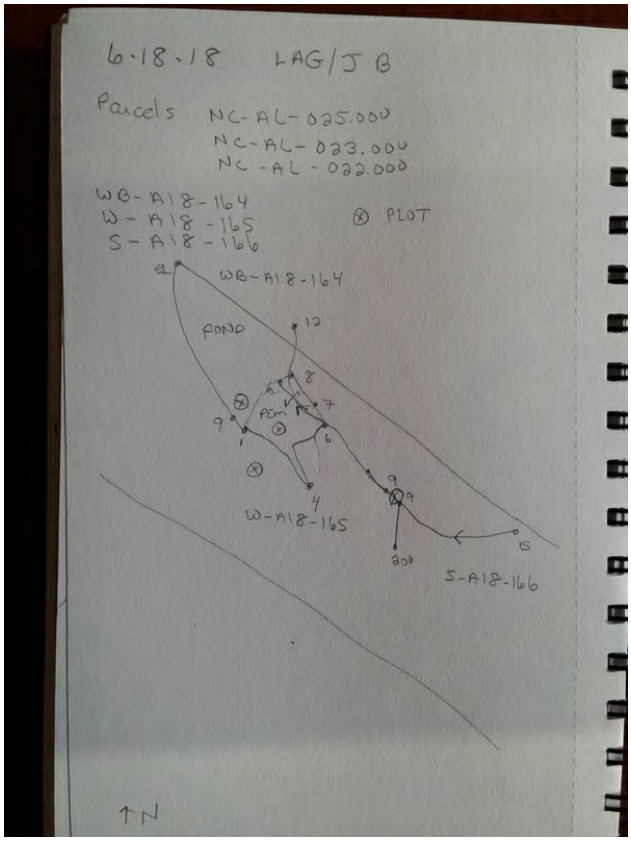
Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Strong
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	7.5
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SE

Downstream Stream Photo	
Downstream photo direction	NW
Across Stream Photo 1	
Across stream photo direction 1	NE

Additional Stream Photos

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-168

Created	2018-06-19 09:01:47 EDT by Jake Brillo
Updated	2018-06-20 11:16:07 EDT by Sam Edmonds
Location	36.2010675576, -79.5016798564
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/19
Date2	180619

Resource Crew Info

Field Crew	Laura Giese, Jacob Brillo, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Jacob Brillo
GPS ID	NA
Resource Series Number	168
Resource ID	S-A18-168
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	18.75
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SE
Channel condition	Marginal
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0.9
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0.9

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	0
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	0.5
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	1
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Mud or muck

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0.75
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0.75

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Absent
In-channel structure	Absent
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Moderate
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	4.5

Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Weak
Leaf litter	Moderate
Sediment on plants or debris	Moderate
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7.5

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	6.75
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Connects to W A18 167
Stream Overview Report Photos	
Upstream Stream Photo	

Upstream photo direction	NW
Downstream Stream Photo	
Downstream photo direction	SE
Across Stream Photo 1	

Across Stream Photo 2

Sketch of Stream

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-169

Created	2018-06-19 12:46:39 EDT by Laura Giese
Updated	2018-06-20 08:48:45 EDT by Sam Edmonds
Location	36.3567511, -79.6149021
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/19
Date2	180619

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	169
Resource ID	S-A18-169
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	18
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	7.5

Stream Hydrology

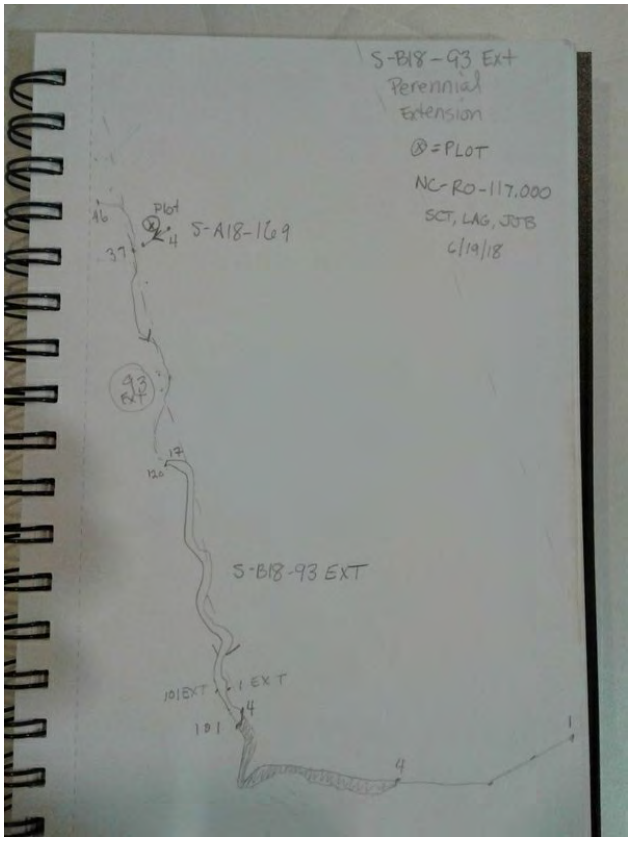
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	4.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	S

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-170

Created	2018-06-19 14:39:06 EDT by Laura Giese
Updated	2018-06-20 09:44:52 EDT by Sam Edmonds
Location	36.3605609, -79.6169587
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/19
Date2	180619

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	170
Resource ID	S-A18-170
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	15.5
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	8.5

Stream Hydrology

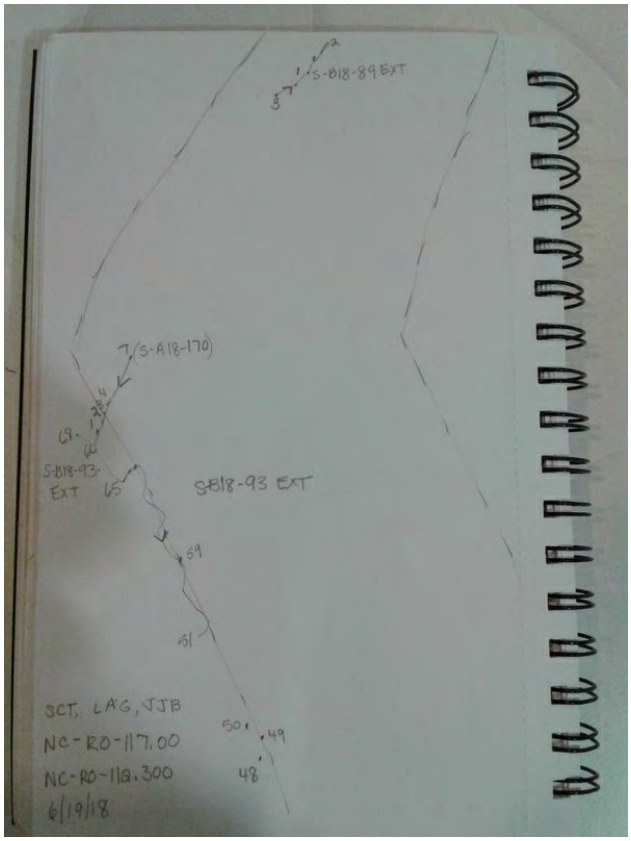
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	No
Stream Hydrology Total	1

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-171

Created	2018-06-20 11:21:32 EDT by Laura Giese
Updated	2018-06-21 07:58:44 EDT by Sam Edmonds
Location	36.3776486, -79.6247556
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/20
Date2	180620

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	171
Resource ID	S-A18-171
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	20.5
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	2
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Absent
Natural valley	Strong
Second or greater order channel	No
Stream Geomorphology Total	8.5

Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	4.5

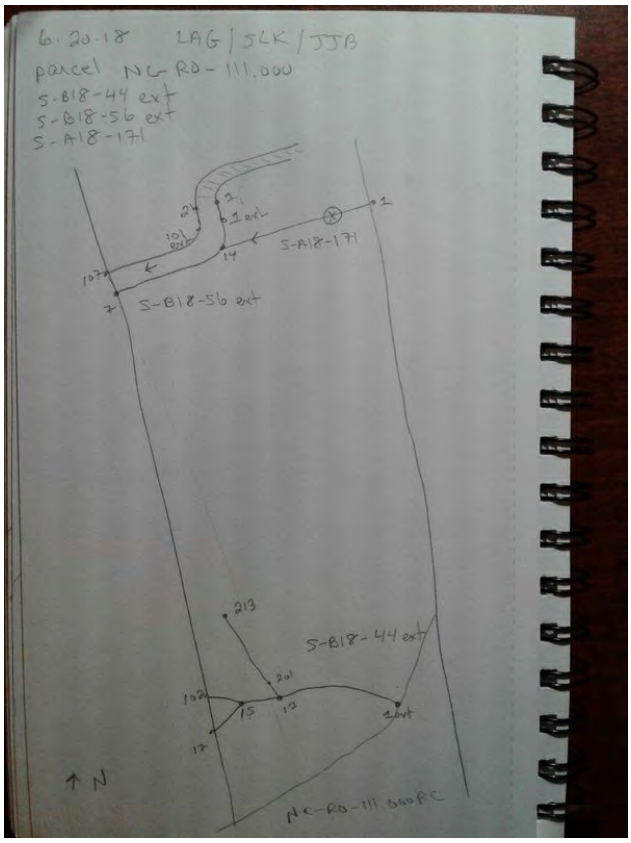
Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	OBL
Stream Biology Total	7.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Vegetated stream bottom R4SB7. Additional photo on downstream end.
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	N

Additional Stream Photos

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-172

Created	2018-06-20 14:26:54 EDT by Laura Giese
Updated	2018-06-21 07:59:35 EDT by Sam Edmonds
Location	36.4001176, -79.6431828
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/20
Date2	180620

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	172
Resource ID	S-A18-172
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	41
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	N

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	4
Average Water Width (ft)	3
Bank to Bank (ft)	5
Bankfull Width (ft)	5
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Strong
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Moderate
Recent alluvial deposits	Weak
Headcuts	Weak
Grade control	Strong
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	22

Stream Hydrology

Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

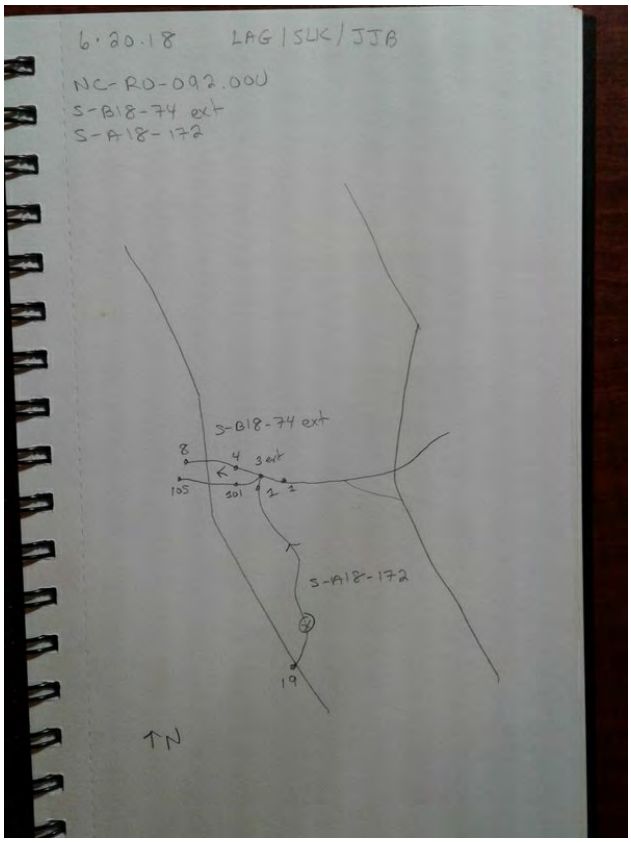
Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Strong
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Strong
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	11
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	S

Downstream Stream Photo	
Downstream photo direction	N
Across Stream Photo 1	
Across stream photo direction 1	NE

Additional Stream Photos

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

WB-A18-173

Created	2018-06-21 15:21:20 UTC by Laura Giese
Updated	2018-09-20 19:16:57 UTC by Susie Gifford (SBG)
Location	36.4331328, -79.6703645
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/21
Date2	180621

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	173
Resource ID	WB-A18-173
Do you need to override the resource id?	Yes
Resource ID Override	WB-A18-173
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Pond
Calculated Stream Score	0
Calculated Stream Type	Undetermined

Stream Conditions

Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	210
Probed Stream Depth	> 36 inches

Left Bank

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0

Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Stream Geomorphology Total	0

Stream Hydrology

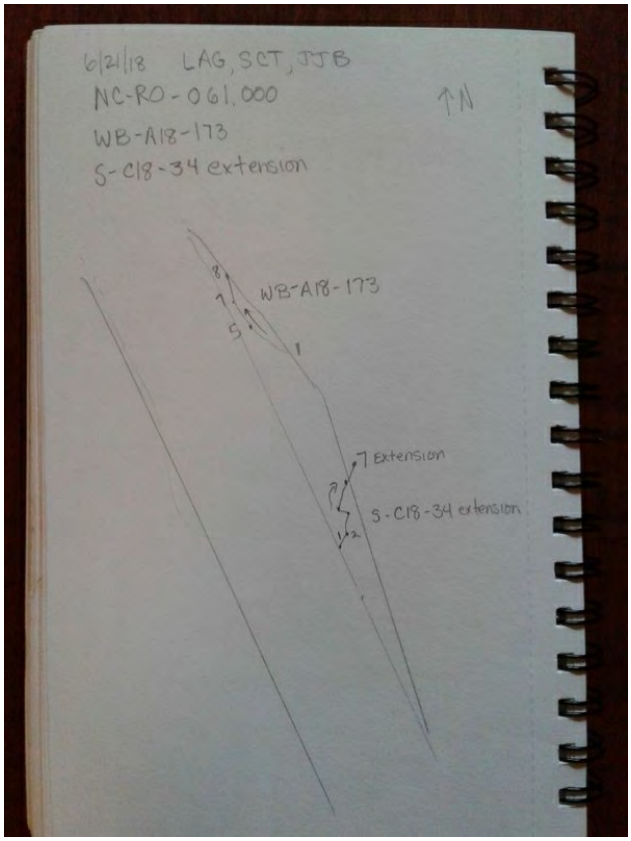
Stream Hydrology Total	0

Stream Biology

Stream Biology Total	0
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NW

Downstream Stream Photo	
Downstream photo direction	SE
Across Stream Photo 1	
Across stream photo direction 1	NE

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-174

Created	2018-06-21 12:56:22 EDT by Laura Giese
Updated	2018-06-26 15:06:48 EDT by Sam Edmonds
Location	36.4281763, -79.6608989
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/21
Date2	180621

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo, Susan Thebert
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	174
Resource ID	S-A18-174
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	23
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	NE

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	2
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	3
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Moderate
Grade control	Weak
Natural valley	Strong
Second or greater order channel	No
Stream Geomorphology Total	12

Stream Hydrology

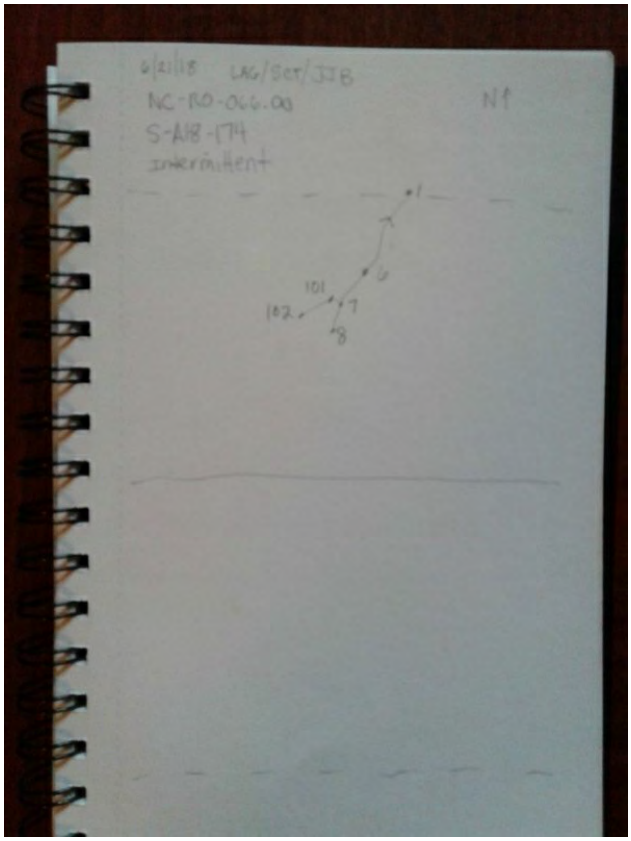
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	6
Notes	Torsional headwater stream
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SW

Downstream Stream Photo	
Downstream photo direction	NE
Across Stream Photo 1	
Across stream photo direction 1	N

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-176

Created	2018-06-22 19:39:12 UTC by Jeremy Hummel [Sabal]
Updated	2018-09-13 15:12:55 UTC by Phil Jacques
Location	36.3516037, -79.6120529
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/22
Date2	180622

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo
Lead Scientist's Initials	LAG
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	176
Resource ID	S-A18-176
Do you need to override the resource id?	Yes
Resource ID Override	S-A18-176
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	40.75
Calculated Stream Type	Perennial
Wildlife Observed	Fish
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	NE
Channel condition	Suboptimal
In stream habitat	Suboptimal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	1.1
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.1

Stream Measurements

OHWM Width (ft)	14
Average Water Width (ft)	8

Bank to Bank (ft)	18
Bankfull Width (ft)	18
Probed Stream Depth	6 to 12 inches

Left Bank

Left Bank Height (feet)	8
Left Bank Slope	> 35% (> 20 deg) Very Steep
Left Erosion Potential	Moderate
Left Bank Substrate	Sand, Silt-Mud, Organic, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0.85
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0.85

Right Bank

Right Bank Height (feet)	6
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Moderate
Right Bank Substrate	Sand, Silt-Mud, Organic, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0.85
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0.85

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Moderate
Depositional bars or benches	Moderate
Recent alluvial deposits	Moderate
Headcuts	Weak
Grade control	Weak

Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	18

Stream Hydrology

Presence of baseflow	Moderate
Iron oxidizing bacteria	Moderate
Leaf litter	Weak
Sediment on plants or debris	Moderate
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	10

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Moderate
Fish	Moderate
Crayfish	Moderate
Amphibians	Moderate
Algae	Absent
Wetland plants in streambed	FACW
Stream Biology Total	12.75
Regulatory Status	State Protected, Corps Jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SW

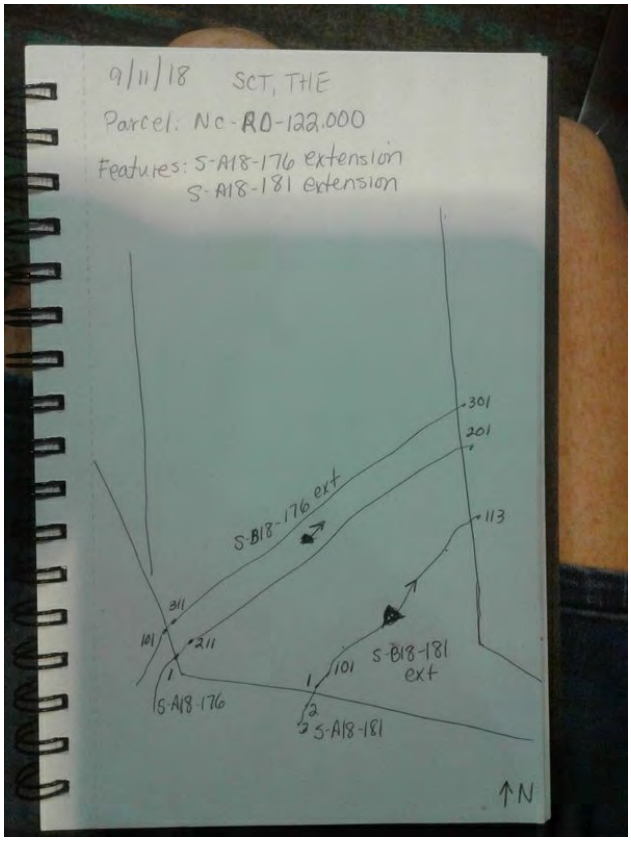
Downstream Stream Photo	
Downstream photo direction	NE
Across Stream Photo 1	
Across stream photo direction 1	E

Across Stream Photo 2	
Across stream photo direction 2	W
Additional Stream Photos	
	Downstream NE ext

Upstream SE ext

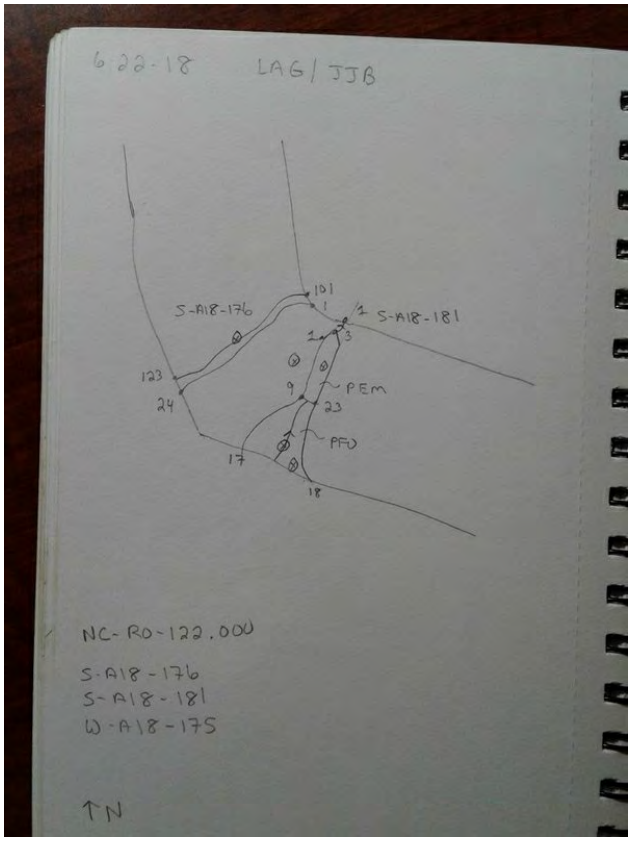
Across N ext

Across S ext



sketch of stream extension

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-177

Created	2018-06-22 10:14:03 EDT by Laura Giese
Updated	2018-06-26 15:05:56 EDT by Sam Edmonds
Location	36.1222358, -79.3724343
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/22
Date2	180622

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	177
Resource ID	S-A18-177
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	32
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	5
Average Water Width (ft)	3
Bank to Bank (ft)	6
Bankfull Width (ft)	6
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Sand, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Low
Right Bank Substrate	Sand, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	Yes
Stream Geomorphology Total	15.5

Stream Hydrology

Presence of baseflow	Moderate
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Moderate
Algae	Absent
Stream Biology Total	9
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NW

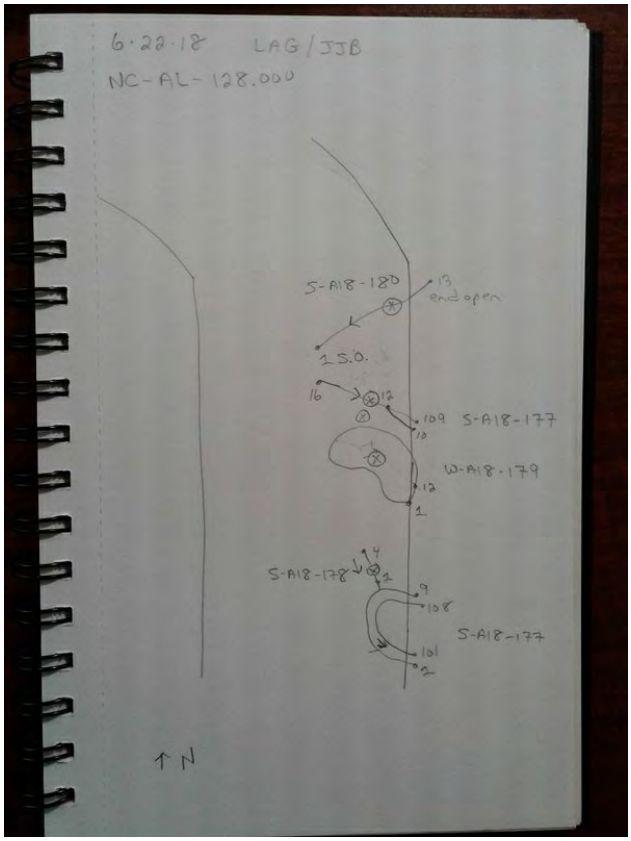
Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	NE

Additional Stream Photos

Downstream portion facing downstream

Downstream portion facing upstream

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-178

Created	2018-06-22 10:21:06 EDT by Laura Giese
Updated	2018-06-27 09:18:57 EDT by Sam Edmonds
Location	36.1223781, -79.3725885
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/22
Date2	180622

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	178
Resource ID	S-A18-178
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	17.5
Calculated Stream Type	Ephemeral

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	2
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	6.5

Stream Hydrology

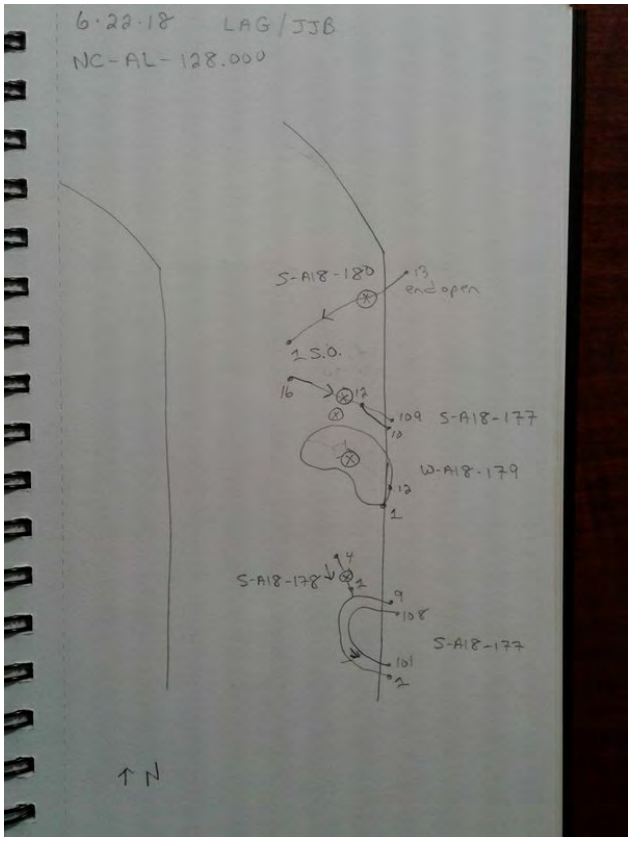
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Stream Biology Total	6
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	SW

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-180

Created	2018-06-22 12:21:12 EDT by Laura Giese
Updated	2018-06-26 15:07:09 EDT by Sam Edmonds
Location	36.1241504, -79.3721689
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/22
Date2	180622

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	180
Resource ID	S-A18-180
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	24.5
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	2
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Sand, Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud, Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Moderate
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	13

Stream Hydrology

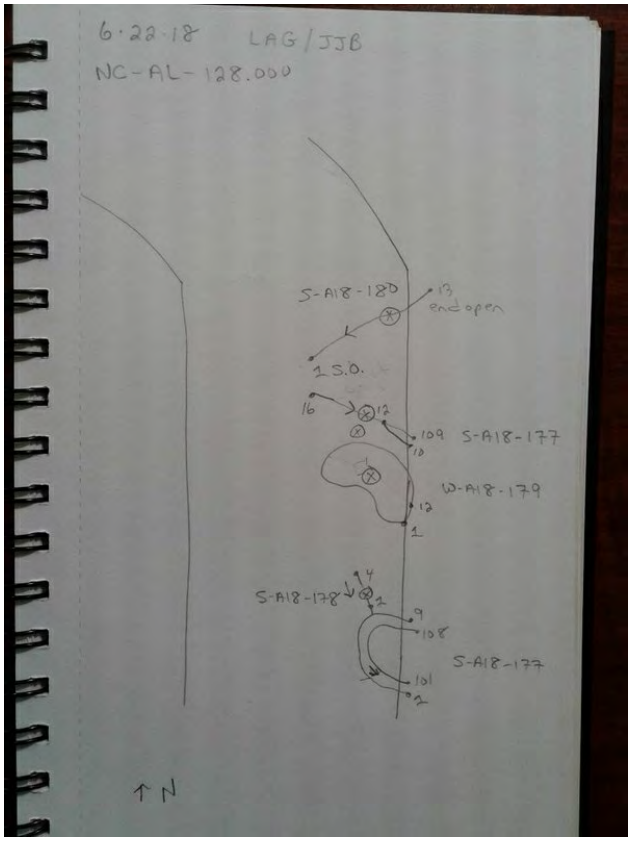
Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Moderate
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Absent
Algae	Absent
Stream Biology Total	6.5
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	S

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-181

Created	2018-06-22 20:14:51 UTC by Laura Giese
Updated	2018-09-20 19:06:20 UTC by Susie Gifford (SBG)
Location	36.3510614, -79.6112717
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/22
Date2	180622

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	181
Resource ID	S-A18-181
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	25
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	N

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	0 to 8% (0 to 5 deg) Nearly Level to Gently Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	10.5

Stream Hydrology

Presence of baseflow	Moderate
Iron oxidizing bacteria	Weak
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	7.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Weak
Amphibians	Weak
Algae	Absent
Stream Biology Total	7
Notes	Groundwater seepage stream
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SW

Downstream Stream Photo	
Downstream photo direction	NE
Across Stream Photo 1	
Across stream photo direction 1	NW

Additional Stream Photos

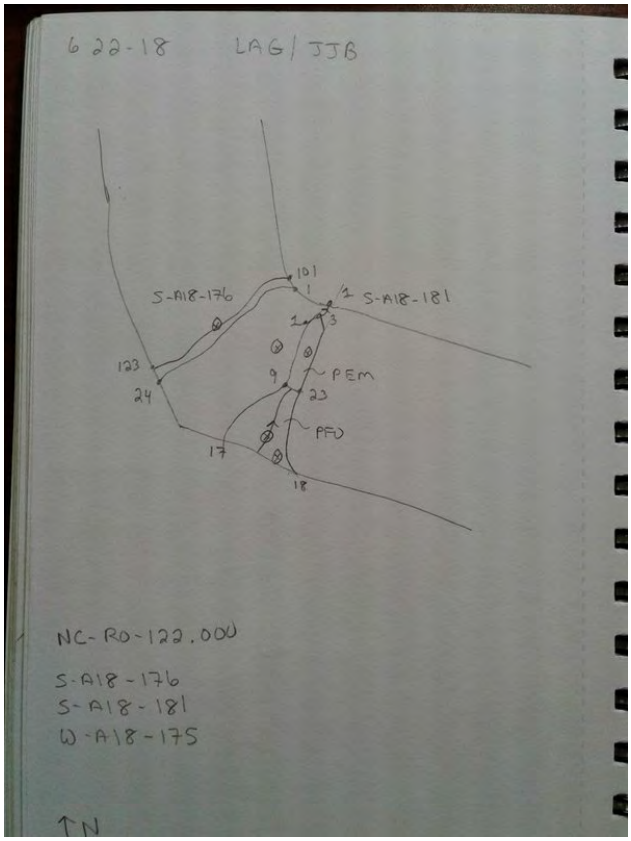
Upstream SW ext

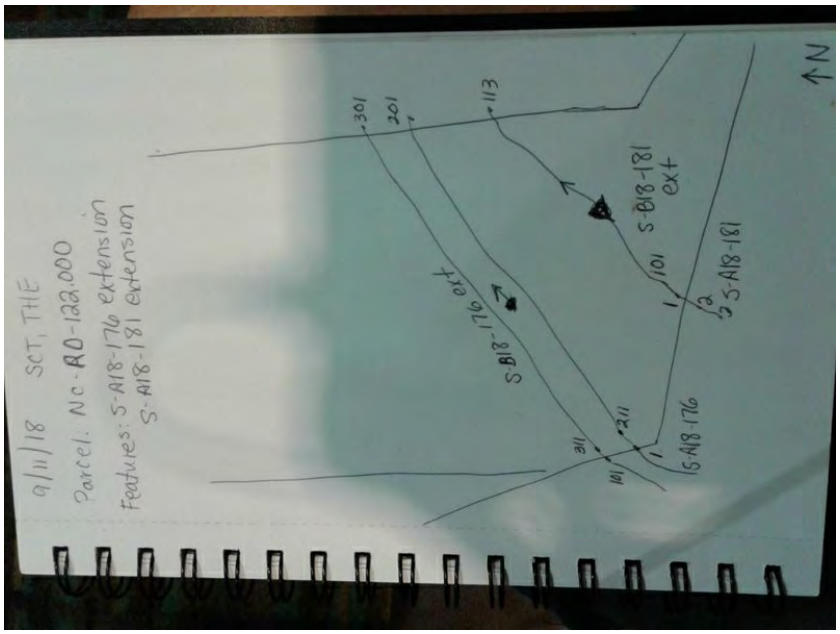
Downstream NE ext

Across S ext

Across N ext

Sketch of Stream





sketch of stream extension

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-182

Created	2018-06-23 08:46:21 EDT by Laura Giese
Updated	2018-06-26 15:07:21 EDT by Sam Edmonds
Location	36.2746887, -79.5584437
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/23
Date2	180623

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	182
Resource ID	S-A18-182
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	23
Calculated Stream Type	Intermittent

Stream Conditions

Water Flow Velocity	Slow (< 1 cfs)
Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent
Natural valley	Strong
Second or greater order channel	No
Stream Geomorphology Total	7.5

Stream Hydrology

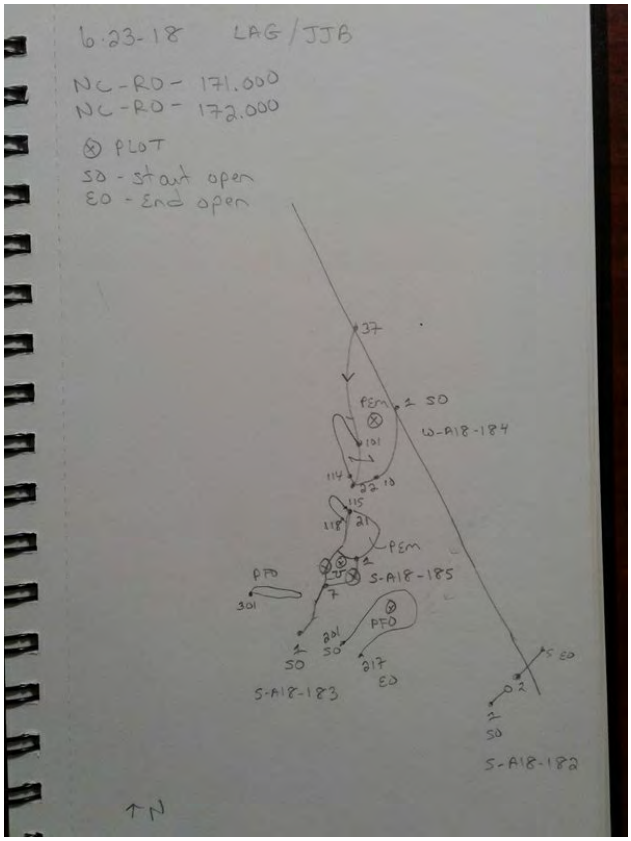
Presence of baseflow	Moderate
Iron oxidizing bacteria	Weak
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	OBL
Stream Biology Total	7.5
Notes	Narrow fringe of hydrophytic vegetation on banks
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	E

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-183

Created	2018-06-23 11:01:30 EDT by Laura Giese
Updated	2018-06-26 15:07:52 EDT by Sam Edmonds
Location	36.2747995, -79.5590965
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/23
Date2	180623

Resource Crew Info

Field Crew	Laura Giese, Jake Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jake Brillo
GPS ID	NA
Resource Series Number	183
Resource ID	S-A18-183
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	35.5
Calculated Stream Type	Perennial

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	S

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

OHWM Width (ft)	4
Average Water Width (ft)	4
Bank to Bank (ft)	4
Bankfull Width (ft)	4
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	3
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Vegetated

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Height (feet)	2
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Low
Right Bank Substrate	Vegetated

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Strong
In-channel structure	Moderate
Particle size of stream substrate	Strong
Active or relict floodplain	Weak
Depositional bars or benches	Weak
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Weak
Natural valley	Strong
Second or greater order channel	Yes
Stream Geomorphology Total	18

Stream Hydrology

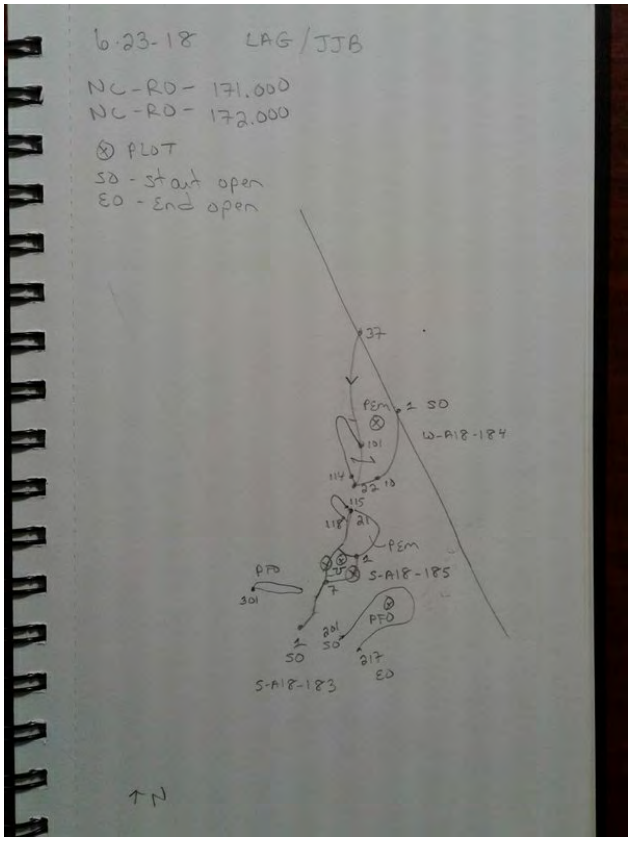
Presence of baseflow	Strong
Iron oxidizing bacteria	Absent
Leaf litter	Absent
Sediment on plants or debris	Absent
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Moderate
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Moderate
Amphibians	Weak
Algae	Absent
Stream Biology Total	9.5
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	SE

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-A18-185

Created	2018-06-23 12:10:16 EDT by Jake Brillo
Updated	2018-06-26 10:31:37 EDT by Sam Edmonds
Location	36.2695266232, -79.5359998007
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/06/23
Date2	180623

Resource Crew Info

Field Crew	Laura Giese, Jacob Brillo
Lead Scientist's Initials	A18
GPS Surveyor	Jacob Brillo
GPS ID	NA
Resource Series Number	185
Resource ID	S-A18-185
Do you need to override the resource id?	No

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	19
Calculated Stream Type	Intermittent
Wildlife Observed	Frogs

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SW
Channel condition	Poor
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	1.1
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.1

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1
Bank to Bank (ft)	2
Bankfull Width (ft)	2

Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	1.2
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.2

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	1.1
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.1

Stream Geomorphology

Continuity of channel bed and bank	Weak
Sinuosity of channel along thalweg	Absent
In-channel structure	Weak
Particle size of stream substrate	Absent
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Moderate
Natural valley	Absent
Second or greater order channel	No

Stream Geomorphology Total	3

Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Moderate
Leaf litter	Moderate
Sediment on plants or debris	Moderate
Organic debris lines or piles	Weak
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	8

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Moderate
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Moderate
Amphibians	Weak
Algae	Moderate
Wetland plants in streambed	OBL
Stream Biology Total	8
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	W

Across Stream Photo 2

Across stream photo direction 2	E

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

WB-B18-1

Created	2018-05-10 13:10:31 UTC by James Bolduc
Updated	2018-09-20 19:30:05 UTC by Susie Gifford (SBG)
Location	36.0981663, -79.382632
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/10
Date2	180510

Resource Crew Info

Field Crew	Jim Bolduc, Tony Tredway
Lead Scientist's Initials	B18
GPS Surveyor	Tony Tredway
GPS ID	NA
Resource Series Number	1
Resource ID	WB-B18-1
Do you need to override the resource id?	Yes
Resource ID Override	WB-B18-1
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Pond
Calculated Stream Score	0
Calculated Stream Type	Undetermined
Wildlife Observed	Frogs
Observed Use	Swimming, Fishing, Irrigation

Stream Conditions

Direction of Flow	SW

Channel Alteration

Negligible (1.5) Channel Alteration	0
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	0

Stream Measurements

Left Bank

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	0
High suboptimal (1.2) [Left]	0

Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	0

Right Bank

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	0
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	0

Stream Geomorphology

Stream Geomorphology Total	0

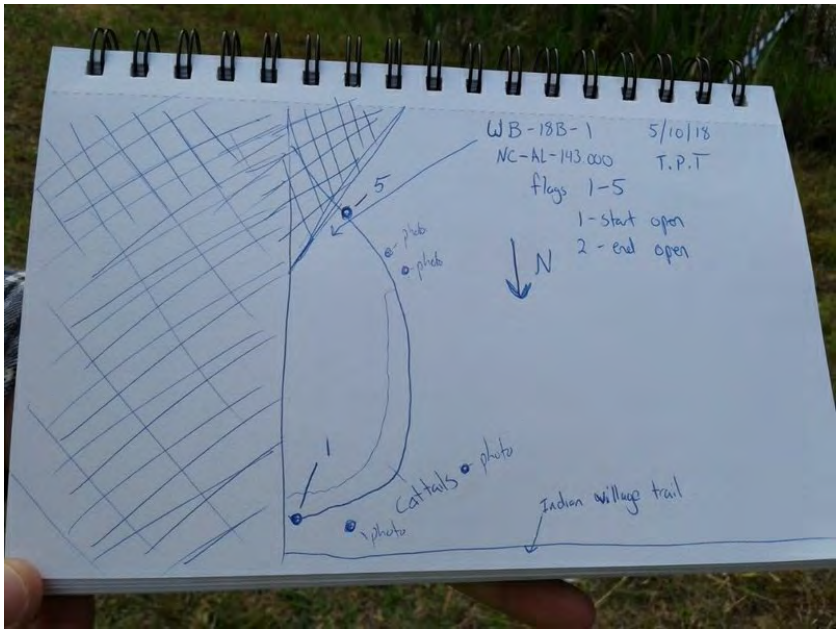
Stream Hydrology

Stream Hydrology Total	0

Stream Biology

Stream Biology Total	0
Notes	Manmade irrigation pond for tobacco fields
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	S

Downstream Stream Photo	
Downstream photo direction	E
Across Stream Photo 1	
Across stream photo direction 1	NE

Across Stream Photo 2	
Across stream photo direction 2	N
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-2

Created	2018-05-10 14:37:03 UTC by James Bolduc
Updated	2018-09-13 15:10:44 UTC by Phil Jacques
Location	36.1001062, -79.3893178
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/10
Date2	180510

Resource Crew Info

Field Crew	Jim Bolduc, Tony Tredway
Lead Scientist's Initials	B18
GPS Surveyor	Tony Tredway
GPS ID	NA
Resource Series Number	2
Resource ID	S-B18-2
Do you need to override the resource id?	Yes
Resource ID Override	S-B18-2

Resource ID = Resource Type - Scientist Initials - Resource Series Number

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	15
Calculated Stream Type	Ephemeral
Wildlife Observed	none
Observed Use	irrigation pond overflow

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SW
Channel condition	Marginal
In stream habitat	Poor

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	0

Bank to Bank (ft)	3
Bankfull Width (ft)	1
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Low
Left Bank Substrate	Cobble-Gravel

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	1.5

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Strong
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Weak
Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	8.5

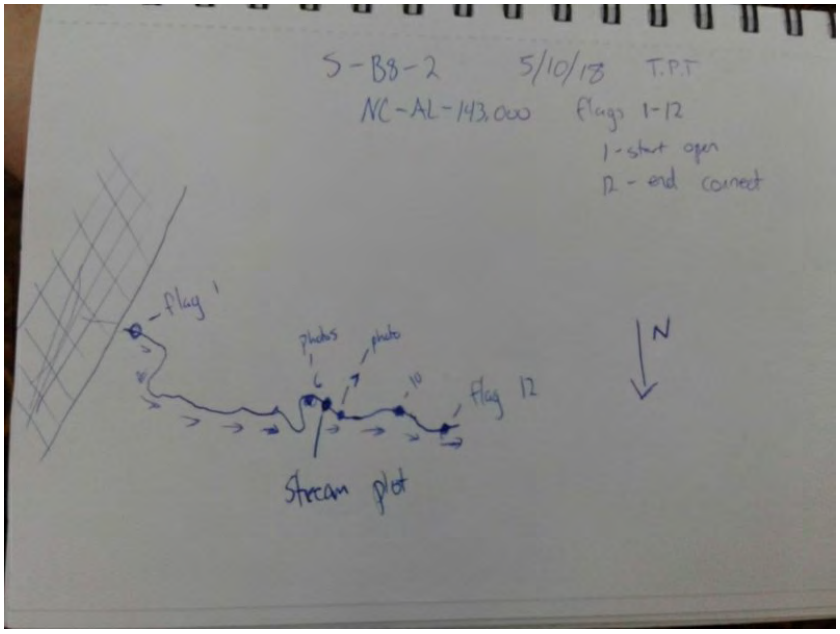
Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	No
Stream Hydrology Total	1.5

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	5
Regulatory Status	State Protected
Notes	Regulated - on USGS topographic map
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	SE

Across Stream Photo 2	
Across stream photo direction 2	N
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-3

Created	2018-05-10 15:30:49 UTC by James Bolduc
Updated	2018-09-13 15:11:07 UTC by Phil Jacques
Location	36.1001062, -79.3893178
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/10
Date2	180510

Resource Crew Info

Field Crew	Jim Bolduc, Tony Tredway
Lead Scientist's Initials	B18
GPS Surveyor	Tony Tredway
GPS ID	NA
Resource Series Number	3
Resource ID	S-B18-3
Do you need to override the resource id?	Yes
Resource ID Override	S-B18-3
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	20
Calculated Stream Type	Intermittent
Wildlife Observed	none
Observed Use	continuation of irrigation pond overflow

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SW
Channel condition	Poor
In stream habitat	Marginal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	0

Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	> 35% (> 20 deg) Very Steep
Left Erosion Potential	High
Left Bank Substrate	Sand

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Sand

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Weak
Depositional bars or benches	Moderate
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Weak

Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	9.5

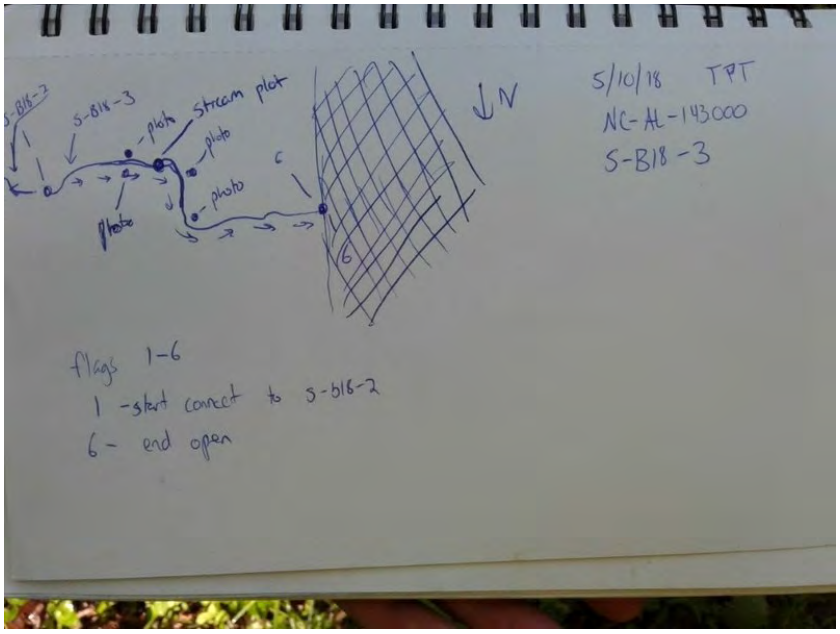
Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Weak
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	5.5

Stream Biology

Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Transitions back to ephemeral off ROW
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	E

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	NE

Across Stream Photo 2	
Across stream photo direction 2	S
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-4

Created	2018-05-10 16:14:03 UTC by James Bolduc
Updated	2018-09-20 19:25:58 UTC by Susie Gifford (SBG)
Location	36.088668, -79.4079651
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/10
Date2	180510

Resource Crew Info

Field Crew	Jim Bolduc, Tony Tredway
Lead Scientist's Initials	B18
GPS Surveyor	Tony Tredway
GPS ID	NA
Resource Series Number	4
Resource ID	S-B18-4
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	18.5
Calculated Stream Type	Ephemeral
Wildlife Observed	Frogs
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W
Channel condition	Suboptimal
In stream habitat	Poor

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	2

Bankfull Width (ft)	1
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	> 35% (> 20 deg) Very Steep
Left Erosion Potential	Low
Left Bank Substrate	Sand

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	> 35% (> 20 deg) Very Steep
Right Erosion Potential	Low
Right Bank Substrate	Sand

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Weak
Natural valley	Weak

Second or greater order channel	No
Stream Geomorphology Total	7

Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	5

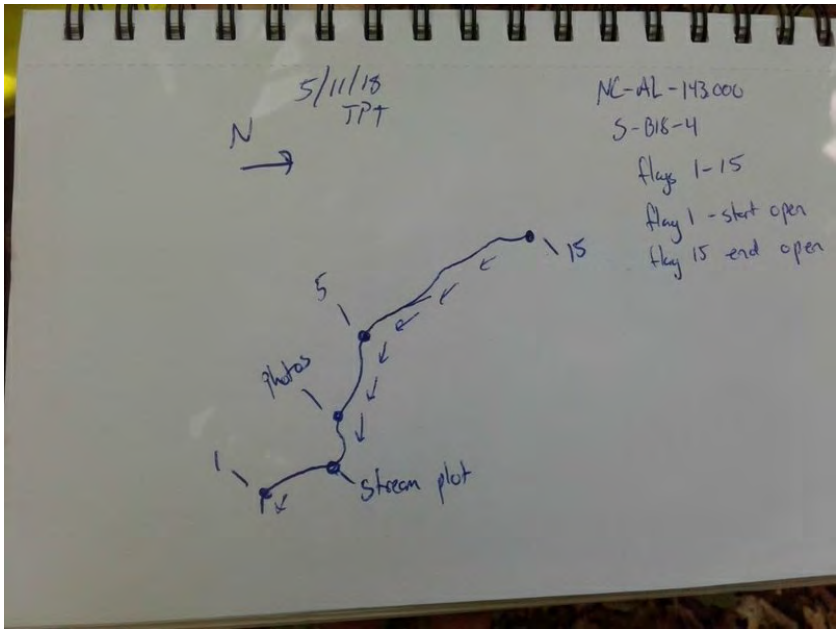
Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Weak
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6.5
Notes	Not regulated
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	SE

Downstream Stream Photo	
Downstream photo direction	NW
Across Stream Photo 1	
Across stream photo direction 1	E

Across Stream Photo 2	
Across stream photo direction 2	W
Additional Stream Photos	

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-6

Created	2018-05-10 18:12:02 UTC by James Bolduc
Updated	2018-09-13 15:11:34 UTC by Phil Jacques
Location	36.1001062, -79.3893178
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/10
Date2	180510

Resource Crew Info

Field Crew	Jim Bolduc, Tony Tredway
Lead Scientist's Initials	B18
GPS Surveyor	Tony Tredway
GPS ID	NA
Resource Series Number	6
Resource ID	S-B18-6
Do you need to override the resource id?	Yes
Resource ID Override	S-B18-6
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	16.5
Calculated Stream Type	Ephemeral
Wildlife Observed	none
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	SW
Channel condition	Suboptimal
In stream habitat	Poor

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	1

Bank to Bank (ft)	2
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	25 to 35% (14 to 20 deg) Steep
Left Erosion Potential	Low
Left Bank Substrate	Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	Low
Right Bank Substrate	Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Absent
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Weak

Natural valley	Moderate
Second or greater order channel	No
Stream Geomorphology Total	6.5

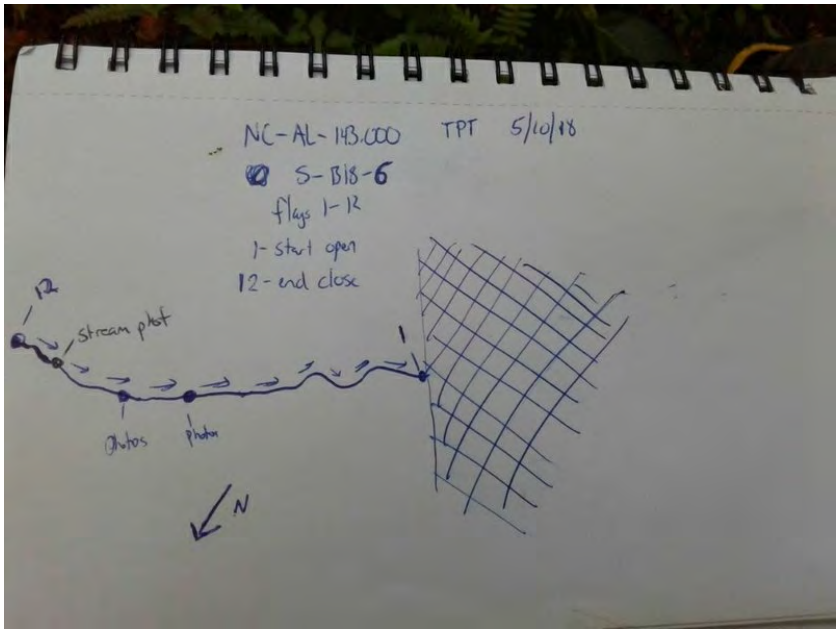
Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	4

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Notes	Natural ephemeral stream draining down from slope into wetland
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	N

Across Stream Photo 2	
Across stream photo direction 2	S
Sketch of Stream	

Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-7

Created	2018-05-11 14:15:47 UTC by James Bolduc
Updated	2018-09-13 15:11:47 UTC by Phil Jacques
Location	36.1001062, -79.3893178
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/11
Date2	180511

Resource Crew Info

Field Crew	Jim Bolduc, Tony Tredway
Lead Scientist's Initials	B18
GPS Surveyor	Tony Tredway
GPS ID	NA
Resource Series Number	7
Resource ID	S-B18-7
Do you need to override the resource id?	Yes
Resource ID Override	S-B18-7
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Perennial
Calculated Stream Score	32.5
Calculated Stream Type	Perennial
Wildlife Observed	fish,frogs,tadpoles,salamanders
Observed Use	unknown

Stream Conditions

Water Flow Velocity	Moderate (1 - 5 cfs)
Direction of Flow	W
Channel condition	Suboptimal
In stream habitat	Optimal

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	7
Average Water Width (ft)	5

Bank to Bank (ft)	10
Bankfull Width (ft)	6
Probed Stream Depth	6 to 12 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	> 35% (> 20 deg) Very Steep
Left Erosion Potential	High
Left Bank Substrate	Bedrock, Rubble, Cobble-Gravel

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	3.5
Right Bank Slope	> 35% (> 20 deg) Very Steep
Right Erosion Potential	Moderate
Right Bank Substrate	Bedrock, Rubble, Cobble-Gravel

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

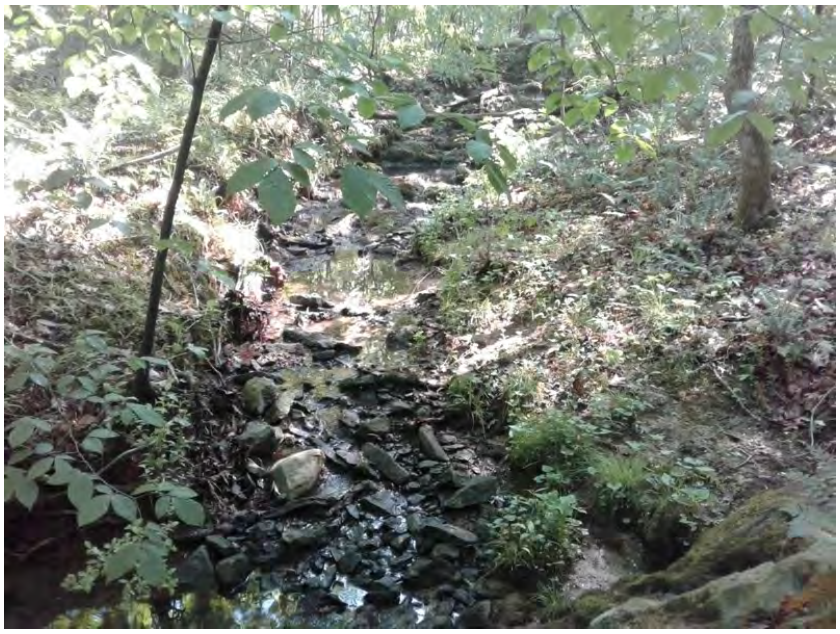
Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Strong
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Strong

Natural valley	Strong
Second or greater order channel	No
Stream Geomorphology Total	15

Stream Hydrology

Presence of baseflow	Moderate
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	6

Stream Biology

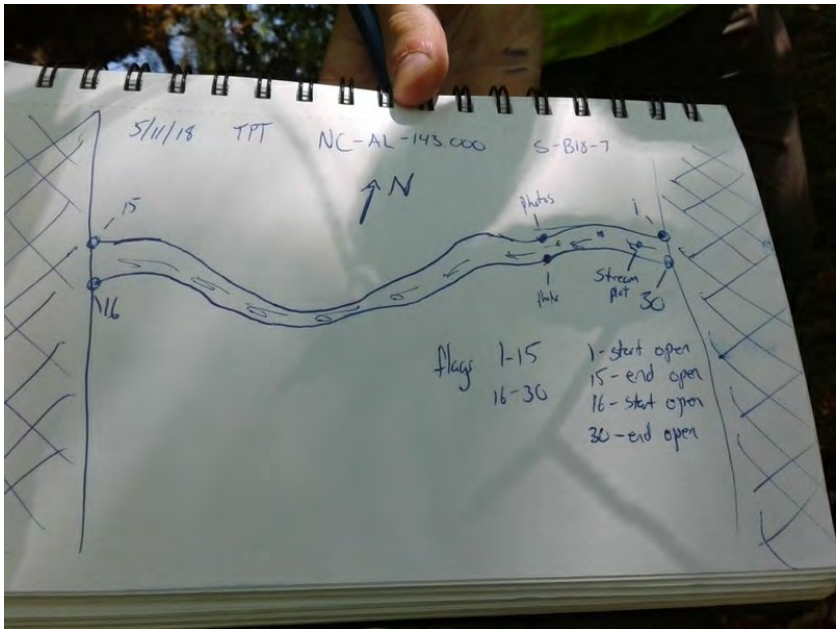
Fibrous roots in streambed	Weak
Rooted upland plants in streambed	Weak
Macrobenthos	Strong
Aquatic mullusks	Moderate
Fish	Weak
Crayfish	Weak
Amphibians	Strong
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	11.5
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Undisturbed stream. Water clear
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	NW

Across Stream Photo 2	
Across stream photo direction 2	SW

Additional Stream Photos

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-8

Created	2018-05-11 17:27:37 UTC by James Bolduc
Updated	2018-09-20 19:28:47 UTC by Susie Gifford (SBG)
Location	36.0921442, -79.3678512
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/11
Date2	180511

Resource Crew Info

Field Crew	Jim Bolduc, Tony Tredway
Lead Scientist's Initials	B18
GPS Surveyor	Tony Tredway
GPS ID	NA
Resource Series Number	8
Resource ID	S-B18-8
Do you need to override the resource id?	Yes
Resource ID Override	S-B18-8
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	21
Calculated Stream Type	Intermittent
Wildlife Observed	None observed
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	W
Channel condition	Severe
In stream habitat	Poor

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1

Bank to Bank (ft)	12
Bankfull Width (ft)	12
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	6
Left Bank Slope	> 35% (> 20 deg) Very Steep
Left Erosion Potential	High
Left Bank Substrate	Sand, Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	6
Right Bank Slope	> 35% (> 20 deg) Very Steep
Right Erosion Potential	High
Right Bank Substrate	Sand, Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Moderate
Recent alluvial deposits	Weak
Headcuts	Absent
Grade control	Weak

Natural valley	Weak
Second or greater order channel	No
Stream Geomorphology Total	11

Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Weak
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	5

Stream Biology

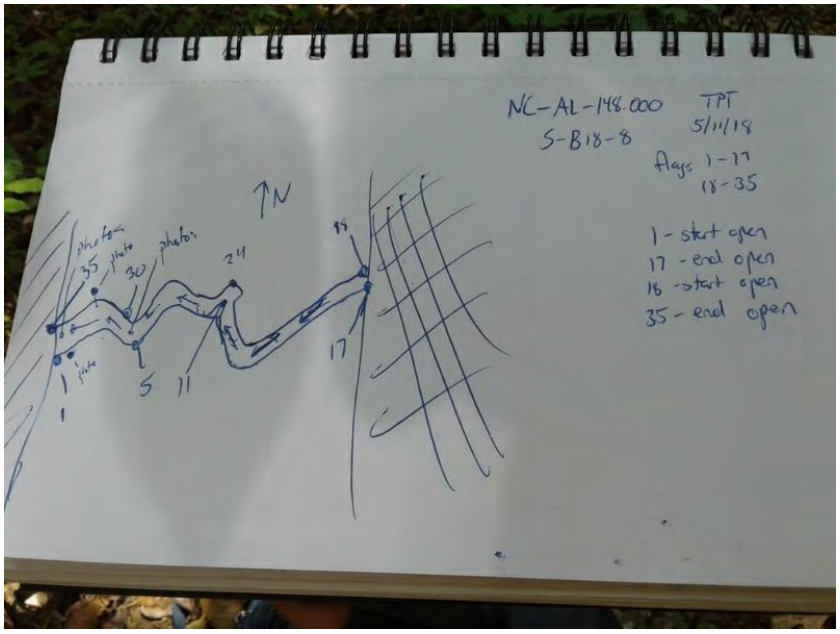
Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Weak
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	5
Notes	Unknown regulatory status. Deep cut
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	W
Across Stream Photo 1	
Across stream photo direction 1	S

Across Stream Photo 2	
Across stream photo direction 2	N

Additional Stream Photos

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-9

Created	2018-05-11 18:29:48 UTC by James Bolduc
Updated	2018-09-20 19:29:26 UTC by Susie Gifford (SBG)
Location	36.0957238, -79.359052
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/11
Date2	180511

Resource Crew Info

Field Crew	Jim Bolduc, Tony Tredway
Lead Scientist's Initials	B18
GPS Surveyor	Tony Tredway
GPS ID	NA
Resource Series Number	9
Resource ID	S-B18-9
Do you need to override the resource id?	Yes
Resource ID Override	S-B18-9
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	7.5
Calculated Stream Type	Ephemeral
Wildlife Observed	none
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	S
Channel condition	Suboptimal
In stream habitat	Poor

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	1
Average Water Width (ft)	1

Bank to Bank (ft)	3
Bankfull Width (ft)	3
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	1
Left Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Left Erosion Potential	Moderate
Left Bank Substrate	Organic

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	1
Right Bank Slope	8 to 15% (5 to 9 deg) Moderately Sloping
Right Erosion Potential	Moderate
Right Bank Substrate	Organic

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Moderate
Sinuosity of channel along thalweg	Weak
In-channel structure	Absent
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Absent
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Absent

Natural valley	Absent
Second or greater order channel	No
Stream Geomorphology Total	4

Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	No
Stream Hydrology Total	0.5

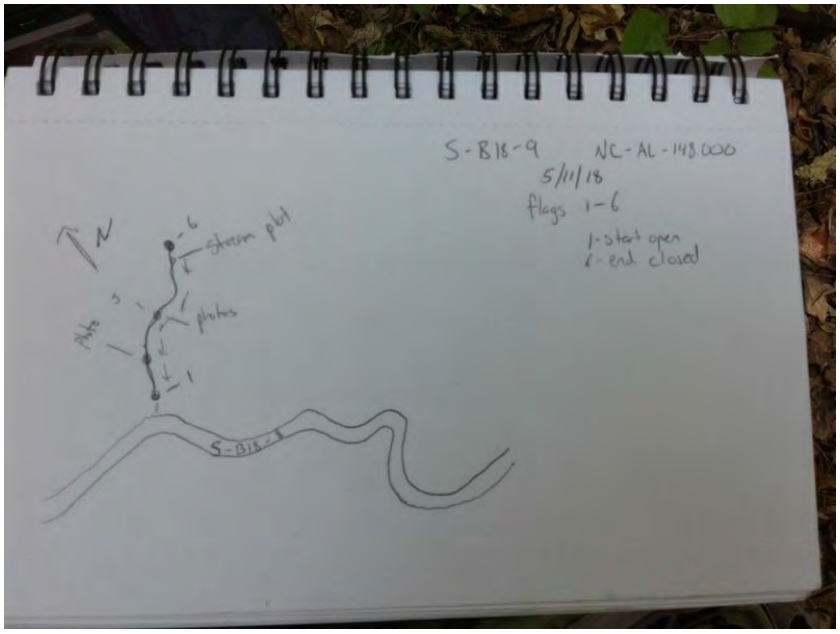
Stream Biology

Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	3
Notes	Not regulated
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	NE

Downstream Stream Photo	
Downstream photo direction	SW
Across Stream Photo 1	
Across stream photo direction 1	E

Across Stream Photo 2	
Across stream photo direction 2	W
Additional Stream Photos	

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-10

Created	2018-05-11 16:02:41 EDT by James Bolduc
Updated	2018-05-23 08:13:48 EDT by Sam Edmonds
Location	36.0921867, -79.3608119
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/11
Date2	180511

Resource Crew Info

Field Crew	Jim Bolduc, Tony Tredway
Lead Scientist's Initials	B18
GPS Surveyor	Tony Tredway
GPS ID	NA
Resource Series Number	10
Resource ID	S-B18-10
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Intermittent
Calculated Stream Score	18
Calculated Stream Type	Ephemeral
Wildlife Observed	None observed
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	S
Channel condition	Marginal
In stream habitat	Poor

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	2
Average Water Width (ft)	1
Bank to Bank (ft)	5

Bankfull Width (ft)	5
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	4
Left Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Left Erosion Potential	High
Left Bank Substrate	Cobble-Gravel, Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	4
Right Bank Slope	15 to 25% (9 to 14 deg) Steeply Sloping
Right Erosion Potential	High
Right Bank Substrate	Cobble-Gravel, Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Absent
In-channel structure	Weak
Particle size of stream substrate	Weak
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Absent
Headcuts	Weak
Grade control	Weak
Natural valley	Absent

Second or greater order channel	No
Stream Geomorphology Total	7.5

Stream Hydrology

Presence of baseflow	Weak
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	4.5

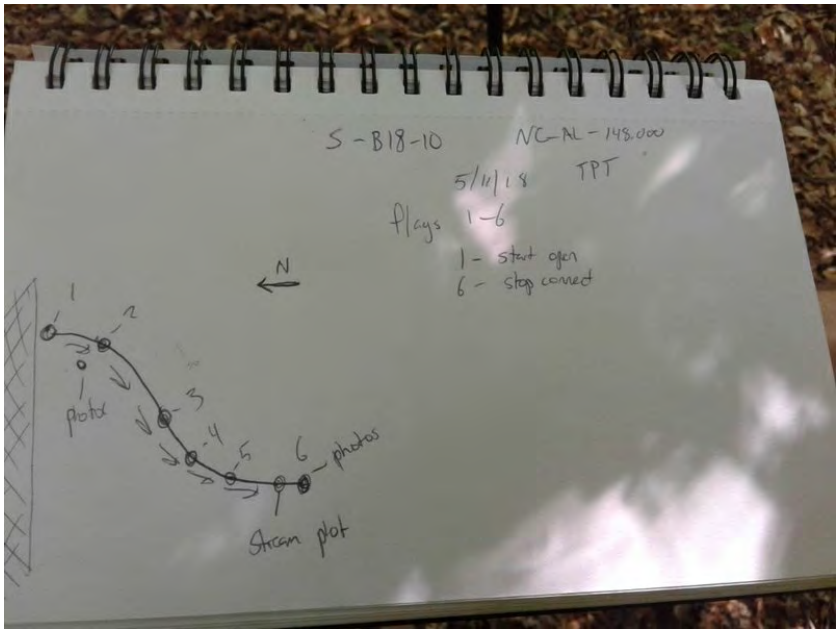
Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Regulatory Status	State Protected, Corps Jurisdictional
Notes	Some water within channel
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	SE

Across Stream Photo 2	
Across stream photo direction 2	NW
Additional Stream Photos	

Sketch of Stream



Environmental Field Coordinator: Karla Fortier GIS Contact: Dan Sweeney Project Manager: Lisa Walker

S-B18-11

Created	2018-05-12 09:16:10 EDT by James Bolduc
Updated	2018-05-23 08:14:00 EDT by Sam Edmonds
Location	36.0960034, -79.3691353
Status	Finalized & Approved
Client	NextEra
Project	MVP Southgate
Date	18/05/12
Date2	180512

Resource Crew Info

Field Crew	Jim Bolduc, Tony Tredway
Lead Scientist's Initials	B18
GPS Surveyor	Tony Tredway
GPS ID	NA
Resource Series Number	11
Resource ID	S-B18-11
Do you need to override the resource id?	No
Resource ID = Resource Type - Scientist Initials - Resource Series Number	

Stream Inventory

Stream / Waterbody Type	Ephemeral
Calculated Stream Score	21.5
Calculated Stream Type	Intermittent
Wildlife Observed	none
Observed Use	Drainage

Stream Conditions

Water Flow Velocity	Dry or Minimal
Direction of Flow	S
Channel condition	Marginal
In stream habitat	Poor

Channel Alteration

Negligible (1.5) Channel Alteration	1.5
Low Minor (1.3) Channel Alteration	0
High Minor (1.1) Channel Alteration	0
Low Moderate (0.9) Channel Alteration	0
High Moderate (0.7) Channel Alteration	0
Severe (0.5) Channel Alteration	0
Channel Alteration Total	1.5

Stream Measurements

OHWM Width (ft)	3
Average Water Width (ft)	1
Bank to Bank (ft)	8

Bankfull Width (ft)	8
Probed Stream Depth	0 to 6 inches

Left Bank

Left Bank Height (feet)	6
Left Bank Slope	> 35% (> 20 deg) Very Steep
Left Erosion Potential	High
Left Bank Substrate	Cobble-Gravel, Sand, Silt-Mud

Left Bank Riparian Buffer Condition

Optimal (1.5) [Left]	1.5
High suboptimal (1.2) [Left]	0
Low suboptimal (1.1) [Left]	0
High marginal (0.85) [Left]	0
Low marginal (0.75) [Left]	0
High poor (0.6) [Left]	0
Low poor (0.5) [Left]	0
Left bank total	1.5

Right Bank

Right Bank Height (feet)	5
Right Bank Slope	25 to 35% (14 to 20 deg) Steep
Right Erosion Potential	High
Right Bank Substrate	Cobble-Gravel, Sand, Silt-Mud

Right Bank Riparian Buffer Condition

Optimal (1.5) [Right]	1.5
High suboptimal (1.2) [Right]	0
Low suboptimal (1.1) [Right]	0
High marginal (0.85) [Right]	0
Low marginal (0.75) [Right]	0
High poor (0.6) [Right]	0
Low poor (0.5) [Right]	0
Right bank total	1.5

Stream Geomorphology

Continuity of channel bed and bank	Strong
Sinuosity of channel along thalweg	Moderate
In-channel structure	Moderate
Particle size of stream substrate	Moderate
Active or relict floodplain	Absent
Depositional bars or benches	Weak
Recent alluvial deposits	Absent
Headcuts	Absent
Grade control	Moderate
Natural valley	Moderate

Second or greater order channel	No
Stream Geomorphology Total	12

Stream Hydrology

Presence of baseflow	Absent
Iron oxidizing bacteria	Absent
Leaf litter	Moderate
Sediment on plants or debris	Absent
Organic debris lines or piles	Absent
Soil-based evidence of high water table?	Yes
Stream Hydrology Total	3.5

Stream Biology

Fibrous roots in streambed	Absent
Rooted upland plants in streambed	Absent
Macrobenthos	Absent
Aquatic mullusks	Absent
Fish	Absent
Crayfish	Absent
Amphibians	Absent
Algae	Absent
Wetland plants in streambed	Other
Stream Biology Total	6
Notes	Non-jurisdictional
Stream Overview Report Photos	
Upstream Stream Photo	
Upstream photo direction	N

Downstream Stream Photo	
Downstream photo direction	S
Across Stream Photo 1	
Across stream photo direction 1	W